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JOURNAL

OF THE

STATISTICAL SOCIETY

OF

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(FOUNDED 1834.)

VOL. XXV.—YEAR 1862.

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CONTENTS.

VOL. XXV.—YEAR 1862.

March, 1862.

	PAGE
Minute of the Statistical Society relating to the Death of H.R.H. the late Prince Consort, Patron of the Society	1—2
Notes on the Progress of the Trade of England with China since 1833, and on its Present Condition and Prospects. By COLONEL SYKES, M.P., F.R.S.	3—19
Statistical Observations relative to the Growth of the Human Body (Males) in Height and Weight, from Eighteen to Thirty Years of Age, as illustrated by the Records of the Borough Gaol of Liverpool. By J. T. DANSON	20—26
The Relative Pauperism of England, Scotland, and Ireland, 1851 to 1860. By FREDERICK PURDY, Esq., Principal of the Statistical Department, Poor Law Board.....	27—49
The Resources of Popular Education in England and Wales: Present and Future. By HORACE MANN, Esq.	50—71
Miscellanea :—Census of France in 1861.—Land Legislation in New South Wales, 1861.—Labour and Wages in Victoria, 1861.—Social Condition of Germany in the Seventeenth and Eighteenth Centuries.—Wills and Administrations.— The French Budget for 1863.—The New Gold Region of British Columbia. — Telegraphic Progress, 1850-61, and Present Prospects	72—83
Quarterly Returns, Oct., Nov., Dec., 1861	84—104

June, 1862.

	PAGE
Report of the Council, presented at the Twenty-Eighth Anniversary Meeting of the Statistical Society, held 15th March, 1862; with the Proceedings of that Meeting	105—110
On the Vital Statistics of Sweden, from 1749 to 1855. By FREDERICK HENDRIKS, Esq.	111—174
On Prison Statistics and Discipline in Lower Bengal. By FREDERIC JOHN MOUAT, M.D., F.R.C.S., Surgeon-Major Bengal Army, Inspector General of Prisons in the Lower Provinces of the Bengal Presidency, Fellow and Member of the Senate of the University of Calcutta, F.S.S., F.R.G.S., M.R.A.S., Honorary Member of the Royal Geographical Society of Berlin, &c., &c., &c.....	175—218
Observations upon the Statistics of Illegitimacy. By W. G. LUMLEY, Esq., LL.M., Barrister, Assistant Secretary of the Poor Law Board, and one of the Honorary Secretaries of the Society	219—274
Quarterly Returns, Jan., Feb., March, 1862	275—296

September, 1862.

On the Inclosure Commission, its Powers, and the Principle on which they have been exercised. By JOHN WILLIAM TOTTIE, F.S.S.	297—312
On the Progress and Economical Bearings of National Debts in this and other Countries. By LEONE LEVI, Esq., F.S.A., F.S.S., of Lincoln's Inn, Barrister-at-Law, Doctor of Economical and Political Sciences of the University of Tübingen, and Professor of the Principles and Practice of Commerce in King's College, London	313—338
An Undiscriminating Income Tax Reconsidered. By WILLIAM LUCAS SARGANT, author of "Social Innovators and their Schemes," "Science of Social Opulence," &c.	339—376

PAGE

Extent of Pauperism of the Distressed Unions in Lancashire and other parts of the North of England, 1861-2. By FREDERICK PURDY, Principal of the Statistical Department Poor Law Board.....	377—383
---	---------

Statistics of the General Hospitals of London, 1861	384—388
---	---------

Miscellanea:—Tenth Italian Scientific Congress.—Railways in India, 1861-2.—Census of South Australia, 1861.—Decreasing Production of Gold in Victoria (Australia).—Agriculture in Holland.—Trade of Persia, 1860.—The Trade in Oranges.—The Extent of the Deficit in the Cotton Supply	389—404
--	---------

Quarterly Returns, April, May, June, 1862	405—424
---	---------

December, 1862.

On the Earnings of Agricultural Labourers in Scotland and Ireland. By FREDERICK PURDY, Esq., Principal of the Statistical Department, Poor Law Board, London	425—490
--	---------

On the Utility of Colonies as Fields for Emigration. By HERMAN MERIVALE, Esq.	491—496
--	---------

On the Prevention of Crime. By EDWIN HILL, Esq., of the Inland Revenue Office.....	497—501
--	---------

Opening Address of the President of Section F (Economic Science and Statistics) of the British Association for the Advancement of Science, at the Thirty-Second Meeting, at Cambridge, in October, 1862. By EDWIN CHADWICK, Esq., C.B.	502—524
---	---------

Thirty - Second Meeting of the British Association for the Advancement of Science, held at Cambridge, 1st — 8th October, 1862. — Section (F), Economic Science and Statistics	525, 526
---	----------

Miscellanea:—The Great Crises in the History of the Cotton Trade.—Effects of Inconvertible Paper Issues in New York, November, 1862.—The Distress and the Resources of Lancashire, 1862. Comparative Poor Rate Expenditure, Seventeen Years, 1842-3 to 1859-60.—Emigration, 1815-61.—Quinquennial Analysis of the Transactions of the Metropolitan Joint Stock Banks	527—538
Quarterly Returns, July, August, September, 1862	539—559
INDEX to vol. xxv (1862)	561—574

JOURNAL OF THE STATISTICAL SOCIETY,

MARCH, 1862.

EXTRACT from the Minutes of a Special Meeting of the Council of the *Statistical Society*, held at 12, St. James's Square, London, on Friday, the 20th December, 1861.

THE RIGHT HON. SIR JOHN S. PAKINGTON, BART., M.P., G.C.B.,
President, in the Chair.

After approving the measures taken by the Honorary Secretaries in postponing the Monthly Meeting of Fellows, it was

RESOLVED,—

That the Council of the *Statistical Society* are deeply sensible of the magnitude of the calamity which has suddenly fallen upon our Queen and Country by the death of HIS ROYAL HIGHNESS THE PRINCE CONSORT; they feel that in him the Nation has lost a promoter of Science, Art, Literature, and every Social

Improvement, as enlightened as he was zealous, and as judicious as he was persevering.

The Council also feel that by the lamented death of HIS ROYAL HIGHNESS, Statistical Science, and kindred branches of knowledge, have been deprived of a friend who displayed extensive and exact acquaintance with this particular class of study; and who, as the active Patron of this Society for twenty years, afforded it the support of his exalted position and distinguished talents.

JOHN S. PAKINGTON, *President.*

WM. NEWMARCH, F.R.S.,

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NOTES on the PROGRESS of the TRADE of ENGLAND with CHINA
since 1833, and on its PRESENT CONDITION and PROSPECTS. By
COLONEL SYKES, M.P., F.R.S.

[Read before Section (F) at Manchester, September, 1861.]

OUR present and prospective relations with China, both commercial and political, are so highly important, and involve such serious consequences, that a few brief observations on these subjects may neither be inopportune nor uninteresting; and the kindness of friends, by the transmission to me of a series of newspapers, chiefly "The Friend of China," printed at Canton, and the "North China Herald," printed at Shanghae, has enabled me to extract and arrange data which, though incomplete, assist our judgment in forming a tolerably just estimate of the state of affairs. Whether our past policy towards China is justifiable or not, the extension of our commercial relations with the Chinese is sufficiently remarkable. In the year 1814 the total amount of imports and exports on British account was under three millions and three-quarters sterling. In 1827 the value was under five millions; and for the last five years of the East India Company's monopoly the average value of the Company's, and the private trade in which they permitted their servants to engage, was still under five millions sterling. Since the Act of 1833, which deprived the East India Company of their monopoly, as might be expected, a rush of competing interests has increased the trade since 1814 nearly sixfold. In 1856, according to statements which appeared in different numbers of the "Hong Kong Government Gazette," the value of the trade, independently of the opium imported from India, amounted to 17,526,198*l.*, viz.:—

Periods.	Ports.	Imports.	Exports.
		£	£
Gazette, 1857, No. 95, April 25	Amoy	221,500	211,292
" " 98, May 16	Canton	2,171,239	1,951,599
" " 89, March 14.....	Foochow	97,916	814,033
" " 90, March 21.....	Ningpoo	136,359	734,161
" " 97, May 9	Shanghae	2,156,829	9,031,270
Value of Opium	—	4,783,843	12,742,355
		4,000,000	
		8,783,843	

It would thus appear that the exports exceeded the value in imports by nearly four millions, which must have been paid to China in silver; but as the balance of trade between India and China has always been in favour of India, most of the silver from Europe found its way to India through China in payment for Opium; and this fact assists to account for the silver which pours into India annually, and does not leave the country again; from the year 1834-35 to 1858-59 India imported 123,143,696*l.* sterling of bullion, of which only 19,752,659*l.* left the country again. If we pass from the above comprehensive view of the trade of the five treaty ports in 1857 to an examination of the enormous increase of the exports from Shanghai for a succession of years, without a commensurate increase of Imports, facts presents themselves which militate against probabilities.

I annex reports which have been published in the Chinese newspapers. The first (A) is a comparative statement of the export of tea and silk from Shanghai from the years 1844-45 to 1859-60, both inclusive. The second (B) appeared in "*The Friend of China*," printed at Canton, and gives statements of the export of tea and raw silk to Great Britain, commencing with 1843-44, and ending with 1857-58, giving the number of vessels annually which conveyed the tea and silk; but the exports from Ningpo are not included. The third statement (C) is from the "*Hong Kong Overland Trade Report*" of the 31st March last, and comprises a statement of the Exports of Tea and Silk from the 1st July to 28th February annually for the last six years. The three statements, therefore, are from three different locations, and a comparison of them indicates discrepancies which could not have been published had they originated in a central office. Before commenting on these returns, it may be right to say that the area of trade by the treaty of Tien Tsin, or rather Peking, extends from north latitude 39° (Tien Tsin) and 35° (New Chwang) to 20° south (Kung Chaw, Hainan), and from east longitude 120° (Taiwan Formosa) to Hankow on the west, on the Yang tse Kiang.

The return of the *Exports* from Shanghai appeared in the "*North China Herald*" of the 10th November, 1860, and commences with the year 1844-45, and terminates with the year 1860 to the 30th June. The qualities of the tea exported, black or green, are only distinguished from the years 1854-55, and only in the last year are the different countries enumerated to which the exports are destined. In 1844-45 the export of tea was only 3,800,627 lbs., and bales of silk 6,433. The very next year the quantity of tea was quadrupled, and the bales of silk rose to 15,192; and an increased export in both tea and silk took place annually, and the year the rebels took possession of Nankin, the export of tea rose to 69,431,000 lbs., and the bales of silk to 28,076. The next year

1853-54, as might have been expected from the confusion consequent upon the subversion of the Tartar authorities at Nankin, the export of tea fell to 50,343,847 lbs., but singularly the bales of silk rose to 58,319; but much more singularly the export of tea in the following year rose to the greatest amount it has ever exhibited from Shanghae, namely, 80,221,245 lbs., and the silk amounted to 53,965 bales. From this year the export of tea fluctuated from 39,135,939 lbs. in 1858-59 to 53,463,771 lbs. in 1859-60. The silk, nevertheless, maintained very high figures; in 1856-57 it rose to 92,160 bales, the greatest amount exported in one year, and in 1860 the export had not fallen below 67,874 bales. If we contrast the first and the last of the sixteen years in the report, a marvellous progress had been made in the export trade. Tea had increased more than 1,300 per cent., and the silk more than 950 per cent. Looking to the destination of the exports in 1860, it is found that Great Britain took more than one-half of the tea, 31,621,204 lbs., but only 19,084 bales of silk; the United States took the next greatest amount of tea, 18,299,388 lbs.; so that the Anglo-Saxon race, including our American brethren, would seem to be the greatest tea drinkers, for the rest of the world would appear to have taken from Shanghae only about 3,500,000 lbs. America took only 1,554 bales of silk, but 47,099 bales went to the continent of Europe and coastwise.

A review of this remarkable progress in the Export trade of Shanghae presents some anomalous and conflicting considerations. Since the year 1853 the rebels or Taepings have been in possession of Nankin, the ancient capital of China, and of several great tea and silk producing provinces on the Yang tse Kiang, or Great River, and Shanghae had to be supplied either from these provinces, or from provinces beyond the rebel territories and still under the Tartar authorities, but whose products would mostly have to pass through the rebel territory to reach Shanghae. Now a portion of the Europeans in China have exhausted damnifying epithets in depicting the rebel character and proceedings—they were bloodthirsty brigands and incendiaries, carrying desolation with them—were flocks of locusts, who, wherever they alighted, left a fertile land a howling waste, and were incapable of establishing regular government, or engaging in commercial relations. These accusations were even sanctioned in print by high authorities in China. I am not the advocate nor the apologist of the rebels, but I cannot refrain from asking myself how the trade of Shanghae could have flourished in the way it has done if the accusations be literally true. Annually increasing quantities of tea and silk could not be produced from howling wastes, and those products, if for the most part coming from provinces under Tartar rule, must have passed unmolested through Taeping territories, though as brigands they should have

plundered them. The Taepings profess to have a divine mission to extirpate the Tartars, their foreign rulers, and to destroy idolatry; and in prosecuting these objects, in combat, in the field, and in storming cities and towns, great atrocities must have been perpetrated; but in respect to the rural population, as contra-distinguished from the Tartars, a fact is patent, that when unexpectedly repulsed in their attacks upon Shanghae in August, 1860, by French and English troops, although exasperated by a sense of betrayal, in their retreat they left uninjured the standing crops around Shanghae, and they did not molest Europeans.

The second (B) trade report appeared in the "Friend of China," and comprises the Export trade in tea and silk from the Treaty ports of China, except Ningpo, from the year 1843-44 to 1857-58 to Great Britain, and it gives the number of vessels which annually sailed from China. The greatest amount of tea in any one of those years sent to Great Britain, was 91,931,800 lbs., and 50,489 bales of silk, in 130 vessels, in 1855-56, chiefly from Canton and Shanghae, although Foochow contributed 26,764,700 lbs. of Tea. The next year 61,468,600 lbs. of tea were sent from the same ports, but silk rose to 74,215 bales, in 113 vessels; but in neither year did Foochow contribute a bale of silk; in 1857-58, 149 vessels were engaged in the trade, and they took 76,744,400 lbs. of tea, and 60,736 bales of silk, Foochow not exporting any silk.

The third trade report gives the export for nine months of the season 1860-61 of Teas to Great Britain and the United States, and of raw Silk to Great Britain and France. From these incomplete returns, it would appear that the export of tea has diminished, as compared with the nine months of three preceding years, but that the export of silk has increased from 56,076 bales to 70,805, France taking only 6,586 of the number.

(A.)—Comparative Statement of the EXPORT of TEA and SILK
from SHANGHAE.

Year ending 30th June.	Total Black.	Total Green.	Tea, Total Pounds.	Silk, Total Bales.
1844-45.....	—	—	3,800,627	6,433
'45-46.....	—	—	12,459,988	15,192
'46-47.....	—	—	12,494,140	15,972
'47-48.....	—	—	15,711,142	21,176
'48-49.....	—	—	18,303,074	18,134
1849-50.....	—	—	22,363,370	15,237
'50-51.....	—	—	36,722,540	17,243
'51-52.....	—	—	57,675,000	20,631
'52-53.....	—	—	69,431,000	28,076
'53-54.....	—	—	50,343,847	58,319
1854-55.....	45,385,816	34,835,429	80,221,245	53,965
'55-56.....	29,115,273	30,184,693	59,299,966	57,463
'56-57.....	12,470,686	28,443,704	40,914,390	92,160
'57-58.....	23,978,114	25,988,527	51,317,003	66,391
'58-59.....	—	—	39,135,939	85,970
'59-60.....	25,663,666	27,800,105	53,463,771	67,874

EXPORT of TEA and SILK from SHANGHAE, from 1st July, 1859, to
30th June, 1860.

Destination.	Black Tea, lbs.	Green Tea, lbs.	Tea, Total lbs.	Total Bales. Silk.
To Great Britain, <i>direct</i>	23,098,813	8,522,391	31,621,204	19,084
„ United States	659,401	17,639,987	18,299,388	1,554
„ Australian Colonies	534,006	380,805	914,811	—
„ North American Colonies	48,533	386,330	434,863	—
„ The Continent of Europe	1,105,398	66,964	1,172,362	} 47,099
„ Coastwise	217,275	803,628	1,020,903	
„ Manila	240	—	240	137
Total	25,663,666	27,800,105	53,463,771	67,874

(B.)—EXPORT of TEA and RAW SILK to Great Britain from "Treaty Ports."

(0,000's at unit end omitted. Thus 41,63 = 41,630,000lbs.)

Exports in Previous Years.	Total Black.	Total Green.	Total Pounds.	Raw Silk, Bales.
	Mln. lbs.	Mln. lbs.	Mln. lbs.	No.
Year 1843-44, in 97 vessels	41,63	8,97	50,61	—
„ '44-45, „ 105 „	41,37	12,19	53,57	10,727
„ '45-46, „ 117 „	44,97	12,60	57,58	18,600
„ '46-47, „ 106 „	45,50	7,86	53,36	19,000
„ '47-48, „ 92 „	40,73	6,96	47,69	21,377
„ '48-49, „ 86 „	38,76	8,47	47,24	17,228
„ '49-50, „ 98 „	45,84	8,12	53,96	16,134
Year 1850-51, Canton	36,01	6,19	42,20	5,260
„ Shanghai	19,85	1,96	21,81	16,883
Total in 115 vessels	55,86	8,15	64,02	22,143
Year 1851-52, Canton	—	—	35,61	2,012
„ Shanghai	—	—	29,52	21,028
Total in 117 vessels	—	—	65,13	23,040
Year 1852-53, Canton	—	—	32,32	—
„ Shanghai	—	—	40,57	—
Total in 113 vessels	—	—	72,90	25,571
Year 1853-54, Canton	—	—	45,13	6,799
„ Fuhchau	—	—	6,14	—
„ Shanghai	—	—	25,94	55,185
Total in 134 vessels	—	—	77,21	61,984
Year 1854-55, Canton	—	—	16,12	7,178
„ Fuhchau	—	—	19,51	—
„ Shanghai	—	—	50,87	44,308
Total in 133 vessels	—	—	86,50	51,486
Year 1855-56, Canton	—	—	30,40	8,435
„ Fuhchau	—	—	26,76	—
„ Shanghai	—	—	34,76	42,054
Total in 130 vessels	—	—	91,93	50,489
Year 1856-57, Canton	—	—	19,63	18,706
„ Fuhchau	—	—	20,83	—
„ Shanghai	—	—	20,99	55,509
Total in 113 vessels	—	—	61,46	74,215
Year 1857-58, Canton	—	—	24,39	29,066
„ Fuhchau	—	—	23,30	—
„ Shanghai	—	—	29,04	31,670
Total in 149 vessels	—	—	76,74	60,736

C.)—Export of TEA to Great Britain and United States, and of RAW SILK to Great Britain and France.—Season 1860-61.

TO GREAT BRITAIN.

Date.	Ships' Name.	From Amoy.	From Shanghai.	From Foochow.	From the Canton Waters.	Total Pounds.
	Total from 1st July, 1860, to 28th Feb., 1861.....	250,000	7,602,369	27,812,900	34,156,742	69,822,011
	As compared with corresponding period 1859-60	—	25,869,370	48,295,466	21,044,480	95,209,336
	„ „ 1858-59	—	11,767,864	11,478,800	20,575,564	43,822,228
	„ „ 1857-58	560,000	21,609,331	18,374,634	5,568,400	46,112,365
	<i>Sailed since.</i>					
Mar. 2	Columbian (mail str.)....	—	—	—	—	—
„ 2	Humphrey Nelson	—	—	546,800	—	546,800
„ 3	Bacchant	—	548,932	—	—	548,932
„ 5	Merchantman	—	—	—	987,200	987,200
„ 12	Corea	—	—	—	759,200	759,200
„ 16	Pekin (mail str.)	—	—	—	—	—

Date.	Ships' Name.	To London.	To Liverpool.	To Out-Ports.	Total Export.	Silk, Bales and Cases.		
						Eng-land.	Mar-seilles.	Total.
	Total from 1st July, 1860, to 28th Feb., 1861.....	62,821,723	5,396,388	1,603,900	69,822,011	64,219	6,586	70,805
	As compared with corresponding period 1859-60	58,951,108	3,847,333	2,410,875	95,209,336	49,586	4,115	53,701
	„ „ 1858-59	39,680,313	2,218,415	1,923,500	43,822,228	55,329	6,571	61,900
	„ „ 1857-58	38,072,608	6,107,277	1,932,480	46,112,365	50,617	5,461	56,076
	<i>Sailed since.</i>							
Mar. 2	Columbian (mail str.)....	—	—	—	—	1,234	212	1,446
„ 2	Humphrey Nelson	546,800	—	—	546,800	—	—	—
„ 3	Bacchant	548,942	—	—	548,932	1,383	—	1,383
„ 5	Merchantman	987,200	—	—	987,200	—	—	—
„ 12	Corea	759,200	—	—	759,200	—	—	—
„ 16	Pekin (mail str.)	—	—	—	—	1,833	488	2,321

(D.)—Exports from England to China.

Articles.	Company's Trade.		Privilege Trade.	
	1833.			
	Quantity.	Value.	Quantity.	Value.
Cotton twist and yarn <i>lbs.</i>	120,000	£ 7,024	packages 65	£ 1,490
„ manufactures..... <i>pieces</i>	15,500	13,174	{ cases 209 bales 128 }	13,067
Broadcloth..... <i>pieces</i>	11,136	104,011	„ 1,243	43,498
Other descriptions..... „	92,337	251,253	{ cases 6 }	
Hardware and cutlery <i>tons</i>	602	3,641	{ „ 1 packages 6 tons 85 }	581
Total	—	384,015	—	71,124

Articles.	1844.		1845.	
	Quantity.	Value.	Quantity.	Value.
Cotton twist and yarn <i>lbs.</i>	3,399,074	£ 117,853	2,609,850	£ 99,958
„ manufactures..... <i>pieces</i>	yards. 98,798,097	1,457,177	yards. 108,449,089	1,633,069
Woollens, entered by the piece	209,985	558,567	183,447	527,266
„ „ yard	68,786	6,192	107,956	10,940
Hardware and cutlery..... <i>tons</i>	cwts. 2,294	16,281	cwts. 2,877	20,668
Glass	13,431	12,956	6,706	7,539
Total	—	2,305,617	—	2,394,827

Articles.	1846.		1847.	
	Quantity.	Value.	Quantity.	Value.
Cotton twist and yarn <i>lbs.</i>	5,367,828	£ 221,856	4,104,040	£ 164,264
„ manufactures <i>yards</i>	78,693,057	1,024,130	60,515,124	846,842
Woollens, entered by the piece	149,301	433,353	141,645	387,667
„ „ yard	51,182	5,247	20,177	1,983
Hardware and cutlery <i>cwts.</i>	1,461	13,793	664	5,294
Glass „	6,583	5,929	8,775	7,109
Total	—	1,791,439	—	1,503,969

(D.)—Exports from England to China—Contd.

Articles.	1848.		1849.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Cotton twist and yarn .....lbs.	4,572,276	142,423	3,352,994	118,094
„ manufactures .....yards	67,507,519	807,012	78,301,138	879,662
Woollens, entered by the piece	154,700	376,315	158,445	376,220
„ „ yard	72,967	2,870	32,184	2,190
Hardware and cutlery.....cwt.	745	4,444	1,053	7,583
Glass „	6,181	5,482	6,397	6,299
Total	—	1,445,959	—	1,537,109

Articles.	1850.		1851.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Cotton twist and yarn .....lbs.	3,116,176	126,569	4,319,330	189,047
„ manufactures.....yards	73,209,187	891,691	114,975,270	1,406,816
Woollens, entered by the piece	161,771	398,485	147,578	368,417
„ „ yard	66,242	5,413	49,561	4,982
Hardware and cutlery.....cwt.	510	5,561	915	7,017
Glass „	7,083	6,167	8,432	6,906
Total	—	1,574,145	—	2,161,268

Articles.	1852.		1853.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Cotton twist and yarn .....lbs.	3,170,992	118,648	5,234,617	198,485
„ manufactures.....yards	119,168,851	1,388,456	98,611,643	1,205,995
Woollens, entered by the piece	117,909	308,782	81,297	198,604
„ „ yard	25,986	2,470	53,114	4,201
Hardware and cutlery.....cwt.	578	9,357	511	6,930
Glass „	4,648	3,791	4,954	2,859
Total	—	1,918,244	—	1,749,597

Articles.	1855.		1854.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Cotton twist and yarn .....lbs.	3,614,709	139,293	2,864,500	95,511
„ manufactures.....yards	41,672,293	498,833	74,033,436	785,922
Woollens, entered by the piece	58,772	147,710	44,636	130,396
„ „ yard	73,184	7,576	17,793	2,711
Hardware and cutlery.....cwt.	240	2,431	643	5,609
Glass { super.ft.	—	—	4,070	420
{ cwt.	3,094	1,949	7,488	6,580
Total	—	1,000,716	—	1,277,944

(D.)—Exports from England to China—Contd.

Articles.	1856.		1857.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Cotton twist and yarn .....lbs.	5,775,620	210,294	3,462,611	158,081
„ manufactures..... yards	112,665,202	1,330,839	121,587,515	1,572,397
Woollens, entered by the piece	92,109	263,181	94,181	276,057
„ „ yard	46,466	4,238	121,888	8,801
Hardware and cutlery.....cwt.	1,355	8,500	1,515	11,720
Glass { super.ft.	—	—	—	—
cwt.	1,507	3,393	15,627	14,019
Total	—	2,216,123	—	2,449,982

Articles.	1858.		1859.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Cotton twist and yarn .....lbs.	6,231,991	26,336	9,198,629	430,964
„ manufactures..... yards	138,488,957	1,821,640	193,935,633	2,755,092
Woollens, entered by the piece	127,450	383,190	222,100	672,045
„ „ yard	63,249	6,475	265,264	28,659
Hardware and cutlery.....cwt.	1,842	12,318	2,287	21,589
Glass { super.ft.	1,087	126	—	—
cwt.	14,493	15,638	11,360	12,057
Total	—	2,876,447	—	4,457,573

Articles.	1860.		1861.	
	Quantity.	Value.	Quantity.	Value.
		£		
Cotton twist and yarn .....lbs.	8,764,036	410,416	—	—
„ manufactures..... yards	222,963,780	3,157,359	—	—
Woollens, entered by the piece	280,386	826,465	—	—
„ „ yard	663,215	41,638	—	—
Hardware and cutlery.....cwt.	3,790	25,735	—	—
Glass { super.ft.	} not stated	29,864	—	—
cwt.			—	—
Total	—	5,318,036	—	—

(E.)—EXPORTS to China (including Hong-Kong), Years 1856 to 1860.

PRODUCE AND MANUFACTURES OF THE UNITED KINGDOM.

Principal and Other Articles.	Declared Real Value.				
	1856.	1857.	1858.	1859.	1860.
	£	£	£	£	£
Apparel, slops, & haberdashery	15,676	14,253	17,628	22,200	32,814
Beer and ale	12,620	35,769	25,760	46,482	99,493
Coals, cinders, and culm	20,758	45,523	28,939	46,068	68,655
Copper, wrought & unwrought	36,940	24,929	21,224	36,722	58,984
Cottons, entered by the yard	1,330,839	1,572,397	1,821,640	2,755,092	3,157,359
,, at value	3,102	1,431	2,182	3,586	2,746
Cotton yarn	210,294	158,081	266,336	430,964	410,416
Earthenware and porcelain	2,375	4,126	4,359	4,167	6,903
Glass manufactures	7,447	14,844	17,070	20,958	29,864
Hardwares and cutlery	8,500	11,720	12,318	21,589	25,735
Iron, wrought and unwrought, in- cluding unwrought steel	66,638	74,413	63,572	114,746	145,313
Lead and shot	80,109	92,623	48,211	65,670	114,035
Linens, entered by the yard	51,703	18,041	15,332	25,735	30,855
Stationery	5,836	4,927	7,510	7,670	11,066
Tin plates	6,879	4,298	10,193	12,776	4,167
Woollens, entered by the piece	263,181	276,057	383,190	672,045	826,465
,, by the yard	4,238	8,801	6,475	28,659	41,638
,, at value	1,223	1,994	1,048	2,029	2,568
All other articles	87,765	85,755	123,460	140,415	248,960
Total	2,216,123	2,449,982	2,876,447	4,457,573	5,318,036

FOREIGN AND COLONIAL PRODUCE AND MANUFACTURES.

Principal and Other Articles.	Computed Real Value.				
	1856.	1857.	1858.	1859.	1860.
	£	£	£	£	£
Cochineal	6,635	2,229	1,749	4,717	4,396
Glass, window and shades and cy- linders	421	6,153	11,216	15,670	2,764
Indigo	—	—	3,878	—	131
Iron, steel, unwrought	—	—	570	1,659	2,854
Lead, pig and sheet	7,784	1,861	648	724	—
Opium	—	—	20,856	—	—
Quicksilver	15,295	2,238	5,502	37,924	26,013
Spelter	4,455	—	4,979	11,056	8,806
Spirits, brandy	4,651	8,210	3,808	7,582	12,986
Wine	19,142	24,156	17,440	30,199	45,030
All other articles	12,228	10,345	19,359	19,132	30,541
Total	70,611	55,192	90,005	128,663	133,521
Total of British and Foreign produce	2,286,734	2,505,174	2,966,452	4,586,236	5,451,557

(F.)—IMPORTS from China (including Hong-Kong), Years 1856 to 1860.

Principal and Other Articles.	Computed Real Value.				
	1856.	1857.	1858.	1859.	1860.
	£	£	£	£	£
Camphor, unrefined	3,196	471	296	—	5,454
Cassia lignea	19,747	5,425	21,472	6,413	20,399
China or porcelain ware and earthen-ware.....	3,318	1,611	3,106	6,616	8,476
Cotton piece goods	1,766	10,695	857	256	903
Ginger preserved	4,393	4,330	6,119	8,099	11,340
Japanned and lacquered ware.....	923	790	1,088	2,170	4,574
Mats and matting	6,063	1,088	1,786	12,354	18,227
Oil, chemical, Essential and per- fumed; cassia	1,182	2,224	3,876	7,621	10,419
Oil, chemical, not particularly enu- merated	8,667	4,990	12,128	15,757	43,087
Rhubarb	30,644	46,017	28,797	31,203	22,216
Silk, raw	3,646,116	6,568,910	1,638,152	3,055,262	2,185,742
„ waste	6,540	43,073	35,579	50,556	38,940
„ thrown	453,552	298,647	162,918	123,979	110,486
Silk manufactures:—					
Crape shawls, scarfs, & hand- kerchiefs, and crape in pieces	27,681	11,297	11,574	31,328	31,205
China damask	1,518	1,278	1,967	849	376
Pongees and pongee handker- chiefs	12,383	11,381	7,569	21,537	21,118
Silk manufactures, not particularly enumerated	8,964	5,630	2,749	5,078	3,270
Sugar unrefined	27,698	79,725	17,337	1,173	47,388
Tea	5,123,080	4,310,205	5,036,293	5,528	6,601,894
Tin	—	—	7,261	—	—
Wax, vegetable	—	—	—	20,023	9,389
Wool, sheep and lambs'	6,425	11,933	3,212	7,266	2,265
All other articles.....	27,792	28,919	70,273	78,109	126,596
Total.....	9,421,648	11,448,639	7,073,509	9,014,310	9,323,764

The first returns relate exclusively to the exports from China, and, as before stated, are derived from the newspaper press in China; but, owing to the obliging courtesy of the Board of Trade in London, I am enabled to annex the exports from England to China corresponding to the years I have quoted of exports from the treaty ports to England, and to add also the quantities and value of the exports and imports to and from China for the years 1856 to 1860, both inclusive.

It will be observed that the value of the exports of the East India Company in 1833 amounted to only 384,015*l.* and of the privileged trade of the captains of their ships to 71,124*l.*—a marvellous contrast to the value of the exports in 1860, which amounted to 5,318,036*l.*

A glance over the returns shows that the balance of trade has been annually against England, varying from 4,000,000*l.* to 7,000,000*l.* sterling. In 1856 the computed real value of the imports from China was 9,421,648*l.*, and the value of the exports to China 2,216,123*l.*—difference, 7,205,525*l.*; but in 1860 the value of the exports had risen to 5,318,036*l.*, and the imports stood at 9,323,764*l.*—difference, 4,005,728*l.*

Our trade with the Chinese resolves itself almost exclusively into our taking from them teas and raw silks, and their taking from us cottons, cotton yarn, woollens.

Although one important item in the trade with China could not appear in the official trade reports, in consequence of its having been contraband; I must, nevertheless, give it prominent notice, from the great value it bore to the whole trade between India and China, without reference to the political, military, and social results which the persistent efforts to force it into China have effected—I mean opium. Volumes have been written upon the subject, with which the *religious* and *mercantile* public must be familiar, although probably not so well known to the rest of the community. The Tartar government, with extraordinary resolution, long resisted the introduction of opium into China; imposing even the penalty of death upon parties engaged in smuggling; and this is the more remarkable as the Tartar authorities were quite alive to the very great revenue they might have derived from its legal introduction. They, nevertheless, chose to forego this advantage, and even risk hostile collision with us—as the Emperor did by ordering the seizure of 20,000 chests in the several depôts at the mouth of the Canton river—rather than profit by its introduction; in truth, whatever the pretexts for our wars with China, they really originated in opium complications and our smuggling transactions. Unhappily, it was to our interest to stimulate a taste for a luxury which, once indulged in, became, in fact, a constitutional necessity. A gradually increasing portion of the middle and better classes on the coasts of China, including many of the Tartar and Chinese Mandarins, acquired the habit of smoking opium, and as well for the luxury as for the bribes they received, the smuggling trade was winked at, and the export of chests of opium from India to China increased from 33,674 in the year 1836-7 to 75,822 chests in the year 1858-9.* Nevertheless, even when the prestige of the Tartar government was almost paralyzed by the capture of Nankin, Sir Henry Pottinger could not get a clause inserted in the Treaty of Nankin legalizing the traffic in opium, and

* The net receipts from opium sold in Bengal in 1836-37 was 1,334,096*l.*, and from pass duty in Bombay 200,871*l.*, total 1,489,038*l.*

In 1858-59 the net receipts by Bengal sales was 3,898,114, and from Bombay passes 1,448,277*l.*, total 5,346,397*l.*

it was only by the recent capture of Peking and the complete prostration of the Tartar government that the object was effected. But now that it is effected as far as the legal sanction goes, our Consul at Shanghai has been engaged in remonstrances with the Tartar Governor, for arbitrarily subjecting Chinese dealers in opium to what are called "squeezes;" that is, heavy contributions, under the pretext of giving aid to the government against the rebels, but really as a punishment for purchasing and facilitating the introduction of opium into the interior of the country. Two Chinese merchants at Shanghai had contributions levied from them amounting to several thousand pounds sterling. I believe similar obstructions to the operations of the opium clause act of the treaty, have occurred at the other consulates. But an unexpected and more formidable impediment to the operation of the opium clause comes from parties with whom we had not previously been in contact, and it may result that we shall again be involved in wasting our blood and treasure to effect that object with the rebels or Taepings which it has cost England so dearly to effect with the Tartars. As we may be involved hostilely with the Taepings or rebels, on the same commercial questions which unhappily involved us with the Tartars, a few words on their origin and present status will not be inconsistent with this paper. Subsequent to 1833, a stimulus to Protestant missionary labours in China was given, and England, America, and Germany contributed to assist in the promulgation of Christianity in China; but for a great length of time very little progress appeared upon the surface; nevertheless, it would seem, from recent events, that a silent and gradual progress was making. Mr. Roberts, an American missionary, at present residing at Nankin under the protection of the rebel government, has been in China, it is understood, for fully thirty years, but he himself states that he has yet to learn the Mandarin or polished dialect. Gutzlaff, a German, must have been a contemporary of Mr. Roberts. I had the pleasure of a personal acquaintance with Gutzlaff, and corresponded with him on his second return to China, and was indebted to him for a valuable catalogue of books on Buddhist ethics, in the Pali language but in the Chinese character, which catalogue I published in the "*Journal of the Royal Asiatic Society*." Gutzlaff was a scholar, and was carrying out his Christian mission with great practical zeal, when he died. He originated a Christian union of Chinese converts, with a view to the instruction of preachers, who, as natives, might penetrate into the provinces of the Empire, and return occasionally to headquarters to report progress. In 1844 the union numbered only 37; in 1845 the numbers were 88, and in 1848 they were 1,799, and are now, it is said, between 2,000 and 3,000.

The editor of "*The Friend of China*" says:—That Gutzlaff's "system was eminently successful in its results, even the head of the

“ Anglo-Malacca College, its bitter antagonist when Gutzlaff was
“ alive, must now admit; and it is part of our present essay to point
“ to the fact that the religious element in the great rebellion has all
“ to be attributed to the operations of Gutzlaff’s Christian Union.”

“ The following particulars of the Union were received by us*
“ from Dr. Gutzlaff himself in 1849, the year before Hung-tsieu-
“ chen aroused his countrymen to revolt:”—

“ During the past two years upwards of two thousand persons have enrolled themselves as members of the Union, and have been baptized.

“ At the close of 1844 the Union numbered thirty-seven. This was the year of its formation, by a few natives of the eastern part of the province of Kwang Tung, who had been converted from idolatry through the exertions of several praise-worthy missionaries.

At the close of 1845 the numbers were.....	88
“ ‘46 “ “	246
“ ‘47 “ “	657
“ ‘48 “ “	1,799

“ And at the present time between two and three thousand.

“ The system pursued by the Society is as follows:—

“ The head quarters are in Hong Kong. The senior preacher, during the time of his stay here, is the president.

“ Any Chinese of good character, and if approved of by the general body, may become an associate. After having given proofs of the interest which he takes in the study of religion, and having made a declaration of faith, he is admitted a member, *but he is not baptized until he has given the most convincing proofs of his sincerity.*

“ The elder members of the different congregations instruct the younger in all points of doctrine.

“ The Old and New Testaments are diligently studied, and every member is required to prepare essays in writing, which are afterwards read or recited extemporaneously.

“ Those members who determine on becoming preachers, come to Hong Kong, and undergo a probation of two years, and are sent out in the interim as co-adjutors of preachers of standing.

“ The stay of the preachers from head quarters is limited, varying from two to eight months, according to the distance of the province to which they belong and are sent.

“ The preachers, on return here, diligently pursue their studies in conjunction with the other members; and so they go on continually increasing in knowledge; and there is reason to believe that some of them are indeed good and faithful servants.

“ On the evening when I visited the Union, the following was the order of the exercises:—

“ From the first body of men who spoke the Hak-ka and Pun-ti dialects, companies of one preacher and three members or associates recited each a chapter from the New Testament, and then went out together to visit bodies of workmen in different parts of the town, and who, at the close of their daily labours, would be at liberty to listen to instruction.

“ I could not catch the names of all who recited the Scriptures, but I understood them to be from the different provinces which I have marked with an asterisk in the list annexed.”

* The Editor of “The Friend of China.”

Provinces.	Preachers.	Provinces.	Preachers.	Provinces.	Preachers.
Pe-che-le	2	*Hu-quang	3	*Sze-chuen	3
*Shan-tung	2	Houpeh	3	*Kan-suh	1
*Shan-se	4	*Fokien	8	Shen-si.....	2
*Gnan-whuy	3	*Kwang-tung.....	44	*Borders of Tonquin	2
Kiang-su	2	Quang-se	8	Isle of Hainan.....	3
*Che-kiang	2	Yunnan	2	Mantchouria	3
*Kiang-si	12	Hocnan	3		
*Hun-an	5	*Kwei-chii	2		119

22 Provinces.

Reprinted from "State and Progress of the Work of Native Evangelists."

"Few people, even among the present body of missionaries in China, have an idea of the extent to which Gutzlaff carried his semi-political, semi-religious schemes in regard to the Celestial Empire; and equally few know of the opposition which he received; principally from those who should have helped him to carry out plans which, in the main, were intrinsically good. With Gutzlaff's death the whole Union may be said to have fallen through so far as European management went;—the funds which he had intended for the Union's maintenance being, by his imbecility on his death bed, diverted to other channels."

From the above list, which was published in "The Friend of China," of the 22nd June, 1861, it would appear that there had been fourty-four native preachers of Christianity in the province of Kwang Tung, where the rebellion originated. The leader of it, Hung-tsien-chuen, had been a pupil of the missionaries at Hong-Kong. It does not seem at first that the Christian movement in Kwang Tung had any political object; but the Tartar authorities endeavoured to suppress it by beheading the converts as promulgators of "depraved doctrines," and self-preservation led them to combine and resist. In 1848-9 Hung-tsien-chuen set up his standard, and, pretending to have been taken up into heaven, and to have been charged with a divine mission to extirpate idolatry and the Tartars, and to promulgate Christianity,—he took the generic title of Taeping, or Great Peace. The masses of the native Chinese population knew and cared little about Christianity, nor were they disposed to fight for idolatry, but the expulsion of their foreign conquerors, the Tartars, was a popular object, and they thronged to the standard of Hung-tsein-chein in such multitudes that he was soon in the possession of the province of Kwang Tung, except the capital, "Canton," which he also would have taken but for the interference of British ships of war, and he subsequently made steady progress towards Nankin, the ancient capital of the empire, which, in 1853, he took possession of, and has held ever since, notwithstanding a siege of some duration by an imperial army, but which was totally routed in May, 1860. Since then the military strength of the rebels has been gradually increasing. Mr. Roberts states that they have several armies in the field, one of them even threatening Peking; and there is a very strong impression that, but for the British having

interdicted the approach of the rebels to the treaty ports, they would speedily fall into their hands; thus depriving the Tartar government of the pecuniary aid which it now derives from the very large customs collections made at the treaty ports, under the superintendence of European agents, who had been in the British service; thus exhibiting a practical illustration of our professed neutrality between the belligerent parties. The nature of this paper would not sanction the discussion of the conflicting opinions promulgated respecting the character and conduct equally of the rebels and of the Tartars. There can be no doubt they practise towards each other the most revolting atrocities, such as are the usual and melancholy accompaniments of civil war, exasperated and embittered by religious fanaticism. I can only consider the question in relation to the prospects of British trade with China. The expenditure of British blood and British treasure in three successful wars have extorted from the Tartars all the facilities for commerce that the British trader desired to have; leaving, however, in Tartar breasts a burning resentment at the degradation of the Imperial Government, and in Tartar officials a manifest disposition to obstructive subterfuges in carrying out the treaty of Tien-Tsin. The Taepings, or rebels, on their part, issue proclamations professing amity for foreigners, calling them Christian brethren, and inviting them, with one exception, to enter into commercial relations, but the traffic in opium they denounce in a religious ordinance, and threaten the penalty of death to those who engage in it. The tax-payers of England, therefore, will have to determine whether the British Government is to tread in its former steps, and, for one article of commerce, waste life and money to force upon a reluctant people, for selfish gain, a deleterious product, while at the same time we intervene to crush a national movement to throw off a foreign oppression, which, under analogous circumstances in Italy, has had our warmest sympathy, and at the success of which all free men rejoice.

STATISTICAL OBSERVATIONS *relative to the GROWTH of the HUMAN BODY (Males) in HEIGHT and WEIGHT, from EIGHTEEN to THIRTY YEARS of AGE, as illustrated by the Records of the Borough Gaol of Liverpool.* By J. T. DANSON.

VERY little is yet known, with any degree of certainty, of the average height, or weight, of either men or women, in this country, when at maturity. Still less is known as to the precise age at which, as a rule, maturity, so far as it is indicated by a cessation of increase in height, or weight, or both, is attained, by either sex. Yet there is some value, undoubtedly, in this knowledge. It is a very long time since, by a rule purely empirical, we fixed upon twenty-one years complete as the age at which a man shall, in this country, be deemed fit to take care of himself, and be deemed fully responsible for his actions. This rule assumes something more than mere physical maturity. But this description of maturity is so obviously the basis of every other, and any inquiry touching intellectual or moral maturity is attended with so much more difficulty, that our science, while gradually supplying a scientific basis for rules thus empirically founded, is clearly called upon to deal first with physical maturity. Of this, height and weight are the most obvious, if not the best indications. Physical maturity has also considerable importance with reference to the military strength of a nation; and in this point of view it is desirable that we should be able to compare our male population with that of other nations.

M. Quetelet, in his work "*Sur l'Homme*," has given some information on the subject, as regards his own country (Belgium). But that country cannot be taken as indicating the condition of any other; and, if it could, the number of individuals measured and weighed by M. Quetelet, or by those whose figures he adopts, seems too small to warrant much reliance on the conclusions to which they have conducted him. For instance, for ascertaining the relative height of the two sexes, at birth, he relies upon the measurement of fifty individuals of each sex, taken at the Foundling Hospital at Brussels. I cannot but regard this number as insufficient to found any conclusion, even as to the Belgian population. It is hardly sufficient to indicate the average of a single year, in one city, and in one class of the population. Nor in this, as in many other instances which might be cited from the work in question, can I suppose that M. Quetelet intended to do more than barely commence, and give examples, and that rather of

the direction than the method, of such inquiries. That an average of height or weight, applicable to any considerable number, cannot be safely deduced from so few as fifty individuals, I shall presently be able to show.

In afterwards tracing the progressive increase of height, for each sex, at each year of age, M. Quetelet omits to state from how many individuals of each age his figures were obtained. And when we reflect how much easier it must be to examine a large number of infants at a foundling hospital, with a precise knowledge of the age of each, and the fullest opportunity of applying an uniform mode of measurement, than to examine, with anything like equal accuracy, the same number of persons at each year of age, subsequently, up to twenty years, I think we are justified in inferring, in the absence of all information on the subject, that the number so examined by M. Quetelet, at each subsequent age, was less than fifty, and was, in all probability, not uniform at successive ages.

Again, in comparing, as to height, the inhabitants of the towns of Brussels, Louvain, and Nivelles, with the inhabitants of the surrounding country, it appears that the figures were obtained by extracting from the militia register, taken at the age of 19, for Brussels, the heights of 400 individuals, and for the rural parishes near that city, the same number. For each of the other two towns, 150 were taken from the urban, and the same number from the suburban register. Here, however, we are met by the suggestion that the men measured, being marked for military service, were to some extent of a select class, and did not fairly represent the entire male population of the same locality.

The largest basis of induction used by M. Quetelet, as to the height of the human body, appears to be one obtained by extracting from "the registers of a great levy" made in Brussels "about eighteen years ago, the recorded heights of 300 individuals (we may presume all males) at 19 years, 300 at 25 years, and 300 at 30 years of age." The work in which these figures appear having been published in 1835, the data of the registry ("eighteen years ago") would run back to 1826 or 1827. The purpose of the levy is not stated. Nor are we told what, in point of precision, or of uniformity, were the methods used to obtain the heights of those measured. Nothing is said of their weight.

Holding the opinions I have just expressed, I was struck, some time ago, when visiting the New Borough Gaol of Liverpool, with the fulness, the uniformity, and the apparent precision of the record there made, from day to day, and preserved, of certain particulars touching each prisoner entering and leaving the gaol, who is committed to it under sentence of imprisonment for one month or more. With the permission of the Governor, I carefully examined these

records, and also the means used for obtaining the height and weight of the prisoners, and thus became convinced that we have there materials adapted for extending, in some degree, and on a safe basis, the knowledge we yet possess of this subject. I then obtained the requisite authority, and with the obliging aid of the Governor, and of the clerk in charge of the books, I had drawn up an account of each male prisoner who had entered the gaol in the two years extending from the 1st of April, 1857, to the 31st of March, 1859, inclusive. This account states, as to each—

1. The date of entry.
2. The age.
3. The height.
4. The term of imprisonment.
5. The weight on entering.
6. The weight on leaving, and
7. The degree of instruction.

Prisoners committed for less than a month are not measured or weighed.

The height and the weight are taken with apparatus constructed for the purpose, by well-known makers, and which appears to answer the purpose well : giving the height to a quarter of an inch, and the weight to a pound. The height and weight are taken at the same time, in the same place, and by the same person ; and they are always taken in the same way ; and, with few exceptions, the figures recorded during the two years in question were obtained and recorded by the same officer, whose character, intelligence, and long practice, afford a strong guarantee for the general accuracy of his work.

The only particular, among those thus recorded, as to which any material doubt of its accuracy can exist, is the *age* of the prisoners. In obtaining this, the officer relies upon three distinct sources of information, no one of which is conclusive, but which taken together afford the best indication attainable. These are, (1) The statement of the prisoner ; (2) His appearance ; and (3) Any previous acquaintance the officer may have had with the prisoner. This previous acquaintance is, in many instances, considerable. A large proportion of the prisoners belonging to a so-called “criminal class,” the members of which are very generally known to the police, and usually continue so for some years. The appearance affords but a rough guide, but it is worthy of some reliance at the ages to which I am about to ask your attention, seeing that at these ages the lapse of a given time is generally attended with a greater change of appearance than at any subsequent age. The statement of the prisoner can be relied upon only so far as his knowledge may extend ; and there are, undoubtedly, many men in the class from which chiefly these prisoners are taken who do not know exactly their own age. On

the other hand, there is, with one exception, which I will notice presently, no apparent inducement on the part of the prisoner, to misstate this fact. The exception arises thus: when boys pass 16 years of age they are allowed the increased diet awarded to "men," as distinguished from "boys." Attempts to obtain this increase, by overstating the age, have been detected; and it is not improbable that they have sometimes passed without detection. But the earliest age as to which I now use these records being 18, this is not likely to have affected them materially for the present purpose. In other respects I am disposed to infer that the ages, as here stated, are quite as worthy of reliance, on the whole, as the ages of males obtained by the census of the population at large.

The total number of prisoners as to whom these particulars were obtained was upwards of 4,800.

The number entering in the first of the two years was 2,526; and of this number 1,563 were of the ages from 18 to 30 inclusive.

Observing that the highest uniform number I could take at each of the thirteen ages, from 18 to 30 inclusive, from the returns of the two years, would be 100—indeed the whole number at one age (29) being only 95—I began, with that number to construct the following table. At the ages 23, 24, and 25, I found the results not progressive—the first 100 taken at each age giving the average heights thus—

At 23	5	6.38
„ 24	5	5.92
„ 25	5	6.6

These being ages at which the prisoners were more numerous than at others, I increased the number from which the average was taken. The whole number at 24, was 185; and I took the average on this number. At the age of 27 also, I took 138, being the whole number at that age.

The table then stands thus:—

Height.

Age.	Number taken for Average.	Average.		Maximum.		Minimum.	Maximum over Average.	Minimum under Average.	Maximum over Minimum.
		ft.	in.	ft.	in.	ft. in.	in.	in.	in.
18.....	100	5	4.34	5	11	4 10½	6.66	5.84	12½
19.....	100	5	4.94	5	11½	4 11	6.56	5.94	12½
20.....	100	5	5.11	5	11	5 1	5.89	4.11	10
21.....	100	5	5.57	5	11¼	5 -½	5.68	5.07	10¾
22.....	100	5	6.17	6	1	5 -¼	6.83	5.92	12¾
23.....	200	5	6.17	6	1	4 11	6.83	7.17	14
24.....	185	5	5.94	6	1	4 9	7.06	8.94	16
25.....	200	5	6.30	6	-	4 11	5.77	7.30	13
26.....	100	5	6.28	6	1¾	4 9½	7.07	8.78	16¼
27.....	138	5	6.38	5	11¾	5 1	5.37	5.38	10¾
28.....	100	5	6.65	6	1	5 1	6.35	5.65	12
29.....	95	5	7.02	6	-½	5 1¼	5.48	5.52	11¼
30.....	100	5	6.36	6	1	5 -¾	6.64	5.51	12¼

Here it is obvious that the results do not indicate a progressive increase in height. For instance, the average height of 185 men at 24, is less than that of 200 men at 23; and 100 at 26 give a lower average than 200 at 25; while 100 at 30 give a lower average than 95 at 29. Yet these are the best results attainable from two years of such observation as is afforded by the records of one of the largest gaols in the kingdom, and where the basis of induction for the average height at each age is much larger, and, I venture to think, far more trustworthy than any hitherto employed.

Here we have to remember that we proceed on the assumption that in the same locality the men attaining (say) 25 in a given year cannot have a less height than the men who shall attain 25 in the year preceding or following. But this may not be so. We learn from the records of the French conscription, that, in that country, of every 1,000 men examined annually at 20 years of age as to their fitness for military service, a considerable number are found to be below the height fixed as a minimum. But this number is not always the same, nor even nearly the same; and there is good reason for supposing that if the whole number of young men who annually reach the age of 20 years in that country, and thus become liable to the conscription, were measured, and their average height ascertained, it also would be found to vary from year to year. An attempt was made some years ago by M. Millot, a French statist, to show that the years of remarkable deficiency in the height and other military requisites of the conscripts coincided with birth-years in which the cost of food had been unusually high. But, whatever the causes of these variations, it is all but certain that they exist, and that, consequently, the most extensive and perfect measurement of individuals of different ages, at

the same time may be expected to yield results partaking more or less of the irregularity exhibited in the above table. I need scarcely add that the data relied upon by M. Quetelet become, in this point of view, so much the more open to objection.

I may observe that the Belgian observations of M. Quetelet give an average height, for men at 18 years of age, of 1·658 metres, or 5 feet 5·27 inches, or about $\frac{4}{5}$ ths of an inch more than the above table. But at 30 years of age M. Quetelet gives 1·684 metres, or 5 feet 6·29 inches, while the above table gives 5 feet 6·36 inches. So that the Englishman would appear to be, at 18, considerably shorter, and at 30 somewhat taller, than the Belgian. Also, the Belgian would appear to want at 18 only about 1 inch of his full height, while the Englishman wants fully 2 inches.

I may here observe, that the minimum height of recruits for the French army, taken at 20 years of age, is 1·560 metres, or a little less than 5 feet 1½ inches; and that of every 1,000 conscripts examined in the five years from 1836 to 1840, no less than 97, or nearly 10 per cent., were rejected for not reaching this height. Of the first 200 of the Liverpool prisoners taken at this age only three were found short of this height. Again, the average height of the whole French army, which is computed annually, is said to have varied during nine years (1835-43) between a maximum of 1·664 metres and a minimum of 1·659 metres. The common average may be taken at 5 feet 5½ inches, which is about 1 inch shorter than the average of the 1,418 Liverpool prisoners comprised in the above table, from 20 to 30 years of age inclusive.

The following table of average weights at the same ages, 18 to 30, shows a similar irregularity. At the age 25 the weight seems excessive; and at ages 24, 26, 28, and 30, it seems deficient.

Weight.

Age.	Number taken for Average.	Average.	Maximum.	Minimum.	Maximum over Average.	Minimum under Average.	Maximum over Minimum.
		st. lbs.	st. lbs.	st. lbs.	st. lbs.	st. lbs.	st. lbs.
18.....	100	8 10·79	10 13	6 6	2 2·21	2 4·79	4 7
19.....	100	9 4·11	12 8	7 4	3 3·89	2 0·11	5 4
20.....	100	9 5·58	12 8	7 13	3 2·42	1 6·58	4 9
21.....	100	9 5·02	12 0	7 3	2 9	2 2	4 11
22.....	100	9 12·41	13 2	7 -	3 2·59	2 12·41	6 1
23.....	100	10 2·95	12 12	7 12	2 9·05	2 4·95	5 0
24.....	100	10 2	12 12	7 12	2 10	2 4	5 0
25.....	100	10 5·65	13 8	8 2	3 2·35	2 3·65	5 6
26.....	100	10 1·06	13 8	6 12	3 6·94	3 3·06	6 10
27.....	100	10 4·75	13 10	7 12	3 5·25	2 6·75	5 12
28.....	100	10 2·62	13 2	7 7	2 13·28	2 9·62	5 9
29.....	95	10 5·53	13 12	8 4	3 6·47	2 1·53	5 8
30.....	100	10 1·55	14 1	8 1	3 13·45	2 0·55	6 0

The conclusions I have arrived at, and which I submit to the Society are :—

1. That the inquiry apparently made by M. Quetelet was insufficient to ascertain the average height of men, at any age, in the localities he refers to, inasmuch as the numbers measured were too small.

2. That the number measured to ascertain the average height or weight of men should include a much larger proportion of the class whose height or weight is sought, than has been used in framing the above table, or than is commonly supposed to be necessary. And

3. That there is good reason for supposing that even among men of the same class, and the same habits, in the same locality, those who attain a given age in one year have not the same, or very nearly the same, average height or weight, as those who attain the same age in years preceding or following.

The RELATIVE PAUPERISM of ENGLAND, SCOTLAND, and IRELAND, 1851 to 1860. By FREDERICK PURDY, ESQ., Principal of the Statistical Department, Poor Law Board.

[Read before Section (F) of the British Association, Manchester, 6th September, 1861.]

CONTENTS:	
	PAGE
I.—Diversities of Relief in the Three Kingdoms	27
II.—Census of Paupers, 1851 to 1860	28
III.—Pauper Lunatics	33
IV.—Poor Rates Levied in the United Kingdom	34
V.—Relief to the Poor	34
VI.—Rate in the Pound, for Relief to the Poor, on Real Property	38
VII.—Conclusion	39
APPENDIX.	
A.—Average Number of Paupers	42
B.—Number of Pauper Lunatics	43
C.—Sums Levied as Poor Rates	44
D.—Sums Voted by Parliament in aid of Poor Rates, and for Special Objects	45
E.—Sums Expended in Relief to the Poor	46
F.—Sums Expended in Public Charity (Pauperizing and Non-pauperizing), in 1860	47
G.—Sums Annually Assessed to the Property Tax	48
H.—Sums Annually Expended under the Medical Charities Act, Ireland	48
I.—Sums Annually Expended for Public Vaccination ; and the Numbers Vaccinated, England and Wales.....	49

I.—Diversities of Relief in the Three Kingdoms.

THE present, being the year of the General Census of the population, appears to be an appropriate season for calling the attention of the Section to the subject of the Pauperism of the United Kingdom. We have recently counted the people of all ranks ; let us now consider that unfortunate grade, who subsist upon the forced charity of the industrious—the pauper class ; and, contrast the development and pressure of pauperism, which severally obtain, in the three kingdoms.

With the aid of official reports and statistical returns, the relative pauperism of England, Scotland, and Ireland, may be investigated during a decennium, which is nearly coincident with the interval falling between the census of 1851, and that of 1861.

Each country has its own poor laws ; and its own executive for their administration. The object of these laws is one. *To afford relief to the destitute poor under such conditions, as may be the least injurious to themselves, and to the community at large.* But, circumstances have impressed so much diversity on the matter and form of

the facts recorded in the Annual Reports of the three Commissions, that it is essential to a valid comparison of either country with the others, to employ the most general as the only congruent data.

England has had an efficient Poor Law, though grossly perverted at one time from its proper object, for more than two centuries—Scotland had not, until 1845, any organized plan of relief comparable with the English system; and in Ireland, no poor law whatever was established before the year 1838. This element of time is to be remembered, when we consider the relative pauperism of the three countries.

Before using the figures of the tables appended, it is necessary to observe that the parochial years for fiscal purposes; and the days of the year on which the paupers are enumerated, differ in the three Kingdoms. In England the parochial year ends on the 25th March; and the paupers are counted on the 1st July and the 1st January in each year. In Scotland the year ends with the 14th May, when the pauper census takes place; the Commissioners considering that a fair average is obtainable on that day. In Ireland the year ends on the 29th September; the pauper census is deduced from the numbers relieved in each of the fifty-two weeks. The statistics here submitted to the section have, where not otherwise noted, reference to the ten years ending in 1860.

It will be also necessary to define the difference between the meaning of the words “pauper,” and “poor person,” as used in the Reports. In England all those who receive any assistance whatever from the Poor Rates, whether it be as food, clothing, lodging, or money, or simply medical relief, are paupers; but, poor persons, vaccinated at the charge of the rates, are not pauperised thereby. There is also, a small class, chargeable indirectly to the poor rates, or directly to some rate on the same basis, as county or borough pauper lunatics.

In Scotland the word “pauper” will bear the same meaning as in England; but, there appears to be no provision for public vaccination at the charge of the poor rates in that country.

In Ireland the recipient of relief from the poor rates, is pauperised under the same conditions that obtain in England; but, the poor are assisted by the Medical Charities Act, under which a considerable sum is annually disbursed in affording them medical aid. Medical relief given under this Act does not pauperize the recipient. There is, moreover, a class of pauper lunatics in asylums, maintained at the expense of the county cess.

II.—*Census of Paupers—1851 to 1860.*

The average population of the United Kingdom, during the ten years terminating in 1860, was 28,104,000; the average of the

annual enumerations of paupers was 1,109,275 or 3·9 per cent. In England the population was 18,901,000; the paupers 892,671 or 4·7 per cent.; in Scotland the population was 3,009,000;* the paupers 120,624 or 4·0 per cent; and in Ireland the population being 6,193,000; the paupers were 95,880 or 1·5 per cent. Thus the relative proportion on the population, was in England 47; Scotland 40; and, in Ireland 15.

English pauperism is a time-honoured institution, the growth of nearly three centuries; and Scotland, under its amended Poor Law, appears emulous of attaining to a scale of relief, which may pass unrebuked, by the side of the English expenditure. Ireland has been disburthened of its superfluous population, by emigration. At the same time, it has been the good fortune of that country, to have had its poor laws inaugurated and supervised by public servants, who were familiar with the English machinery; and, who were well acquainted with the evils of a deep-rooted pauperism; and, with the practical benefits, which the amendment of the Poor Laws in 1834, had conferred upon English rate-payers, and English labourers. The decline of Irish pauperism is still more remarkable, when we collate the numbers relieved in 1851 with those of 1860. In the former year the total was 226,452; and in the latter, 43,272. But, the pressure in Ireland, though great in 1851, was far below that experienced in the three previous years. The *maximum* of pauperism was attained in July, 1849, when 1,005,800, or 221,583 in-door, and 784,307 out-door, paupers were relieved.†

In the practical management of the Poor Laws, the economists and the reformers have, with reason, regarded the system of "out-door relief" with great disfavour. This arises from two causes; one is the difficulty of testing the applicant's destitution; and the other, the fear that the rates may be diverted, in the hands of the employers of labour, to the depression of wages. A large ratio of out-door relief, is regarded as the surest index of a badly managed Union, or Parish. In respect of Scotland the reports do not usually discriminate the in-door from the out-door paupers; this information, however, is given for 1859.‡ The following comparison is therefore limited to that year; but, in respect of the other parts of the kingdom, the figures for the ten years are given in the Appendix (Table A).

* This estimate of the average of the Scotch population for the decennium, was made before the census of 1861 was published; it gives a higher figure than that enumeration warrants—consequently, the ratio of pauperism, and the rate per head for relief, as represented in this paper, are somewhat *lower* for Scotland than they should be.

† Select Committee on Poor Relief (Ireland), No. 408, Sess. 1861, Q. 72.

‡ "Fourteenth Annual Report of the Board of Supervision for Relief of the "Poor (Scotland)," p. 24.

	Census of Paupers, 1859.		
	In-door.	Out-door.	Total.
England and Wales....	121,232	744,214	865,446
Scotland	8,678	113,335	122,013
Ireland.....	40,369	1,248	41,617

Thus it appears that for one in-door pauper, England relieved 6·1 out-door; Scotland 13·1 and Ireland 0·03. Out-door relief was nearly extinct in the latter country.

As regards able-bodied pauperism, a comparison can only be made between England and Ireland, because, the “able-bodied,” as such, have no legal claim to relief in Scotland. According to the latest returns* there were in England, 132,120 adult able-bodied paupers; and in Ireland, of the same class, 7,927 only. These figures give a percentage on the population of ·66 for the former, and ·13 for the latter country; that is, as *five to one*. In this class the women are, in both countries, three times as numerous as the men. England, which has workhouse room for 218,000† inmates, does not use *one-thirteenth* part of it for the reception of adult able-bodied paupers; on the other hand, Ireland relieves *all* of that class in the workhouse; England gives out-door relief to *seven* adult able-bodied paupers, in respect of *one* in-door.

The remarkable contrast which Ireland offers to Scotland, has been commented upon in the Scotch Poor Law Reports, where the Scotch pauperism has been collated with that of Ulster and Connaught. The Scotch expenditure for relief, has been also compared, by the Scotch Board, with the corresponding outlay in the northern, and north-western divisions of England.‡ Those districts of Ireland and of England, were selected for comparison with Scotland, as affording great similarity, in their respective circumstances, apart from the existence of pauperism.

“In Scotland,” observe the Commissioners, “out-door relief is “the rule — relief in the poorhouse the exception — of 119,453 persons receiving relief in Scotland on the 14th May (1857), only “about 6,000 or little more than 1 in 20 of their number were in “poorhouses. Of 53,331 persons receiving relief at the same time

* “Thirteenth Report of the Poor Law Board,” and “Fourteenth of the Irish Poor Law Board.”

† “Union Almanac, 1861” (C. Knight and Co.), p. 19, *et. seq.*

‡ “Thirteenth and Fourteenth Annual Reports of the Scotch Poor Law Board.”

“ in Ireland only 944 received out-door relief, 52,387 were inmates of the workhouses. In Ireland relief in the workhouse, and only in the workhouse, is the rule—out-door relief the rare and special exception. To this broad difference in the conditions upon which relief can be obtained it is probable that the vast disparity in the ratio of pauperism to population ought mainly to be attributed.”* The Commissioners further remark, that of the Irish population resident in Scotland, 1 in 13 *is a pauper*; but, that in Ireland, exclusive of the able bodied, this class having no claim to relief in Scotland, the ratio is 1 in 274. It is unfortunate that a similar comparison cannot be made between the Irish at home, and the Irish in England.

The Scotch Commissioners return to the subject of this startling disparity, in their subsequent report. Their observations are so important, and bear so immediately upon the facts, that I cannot refrain from quoting the passage. “There are thus,” they state, “in any given number of the population, more than 12 paupers in the Highland counties for every 1 pauper in Ulster and Connaught. For so vast a disparity there must be causes that are intelligible. * * * * Ten years ago it did not exist, and we must seek its causes in the changes that have taken place since that time. In the years from 1846 to 1849, the avidity to obtain eleemosynary aid was at least as great as general, and led to quite as many and as ingenious devices to secure it in Ireland as in the Highlands. The tendency to rely upon that description of assistance, though attempts were made to guard it by careful scrutiny, and the labour test, was not checked in Ireland until the workhouse was available. The cruelty of resorting to that mode of relief was then denounced in terms of unmeasured severity; but those who looked not to present popularity, but to the permanent welfare of the people, persevered; and it may be doubted whether there is now to be found one sincere friend of the labouring classes in Ireland who has intelligently considered the subject, and who believes that the industry, the self-reliance, and the power of self-maintenance now exhibited by the people of Ireland could have been developed as it has been in the last ten years if out-door relief had then been as easily obtained as it now is in the Highlands of Scotland; or who doubts that the people of Ireland have gained far more by this development than they could have gained by a system of out-door relief, which repressed the growth of those qualities and habits.”†

Those who are unacquainted with the subject of Scotch pauperism, will be surprised to find the degradation to which the population of the Highlands has sunk, in the course of a few years, under the blighting influence of an indiscriminate system of out-door relief.

* “Thirteenth Annual Report of the Scotch Poor Law Board,” p. 7.

† “Fourteenth Report of Scotch Poor Law Board,” p. 21.

Strong evidence of the demoralizing effects of untested relief in that district, was given by Mr. Briscoe to the Irish Poor Relief Committee of last session.

Mr. Briscoe is officially connected with the Scotch Board, as General Superintendent of the Poor; and in that capacity has visited 10,000 registered poor (paupers), or heads of families, at their own houses. He gave the committee a very long list of persons, who were improperly relieved; forcibly suggesting the abuses of the unreformed English poor laws; and, subsequently, to the question—"Then, the effect of this out-door relief has been very demoralizing, and has broken down the spirit of independence?" made this remarkable answer: "Not the least doubt about it; it has deteriorated to a considerable extent truth, industry, morality, self-respect, self-reliance, the natural affections, and independence of character; it appears as if the whole of the humbler classes had completely changed character; there is no shame whatever now in demanding relief, even among some of higher station. The state of things in the Highlands of Scotland is perfectly deplorable, and every person admits it."*

The rapid increase in the pauperism of Scotland is clearly due to the insufficient workhouse test of that country. It vividly recalls to mind a passage in Mr. Twistleton's dissent from the Report of Her Majesty's Commissioners appointed in 1843 to inquire "into the administration and practical operation of the Poor Laws of Scotland." Mr. Twistleton was one of the Commissioners; and he brought to the consideration of the subject great knowledge of the actual working of the English Poor Laws. Mr. Twistleton's "Reasons of Dissent" are drawn up in eight paragraphs. The following words form part of the sixth:—"But while I admit that the arrangement of various details may be safely vested in the managers of the poor in each particular town, it is my opinion that the *principles* of dealing with a subject so difficult as that of administering relief, should be settled by the more enlarged wisdom of Parliament. And a matter of such importance as the erection of poorhouses ought not to be dependent either on the honest judgment, or possible caprice, partial knowledge, or narrow views of accidental majorities in particular localities."†

After seventeen years' administration of their amended Poor Laws, the Scotch authorities have left four-fifths of their parishes unprovided with poorhouses. But, it is necessary to add, that the Commissioners anticipate a considerable increase in the number, as seventy-seven parishes are taking steps to build new poorhouses.

* "Report on Poor Relief (Ireland)," House of Commons, 1861, p. 369.

† "Report of Her Majesty's Commissioners on Scotch Poor Laws," p. 66, 1844.

III.—*Pauper Lunatics*—1st January.

No class of the poor have a greater claim upon our care than the insane. For some years returns of the number of pauper lunatics and idiots, who were chargeable on the 1st January, to the unions and parishes in England and Wales, have been made to Parliament; and the same information has been more recently published for Scotland. With regard to Ireland there is a similar Return for 1857 only. Taking this, with the average numbers of the two last years for England and Scotland, we arrive at the following results:—

The numbers embrace all descriptions of insane paupers; whether designated as lunatic, idiot, imbecile, or fatuous. (Table B, Appendix.)

England and Wales	33,068
Scotland	5,103
Ireland	5,639
	<hr/>
	43,810
	<hr/>

Comparing these numbers with the population of the respective countries, we obtain the following figures:—

In England and Wales .168 per cent. of the population are pauper lunatics.			
„ Scotland .....	.165	„	„
„ Ireland.....	.093	„	„

It is difficult to explain the low ratio of pauper insanity in Ireland as compared with England and Scotland. The Commissioners who reported in 1858 on Irish Lunatic Asylums, stated that there were 3,352 “insane poor at large and unprovided for.” Assuming that this class, in England or Scotland, would have received relief; and, therefore should have been included for the purpose of the comparison, the ratio above, would have been .150 per cent. It should also be remembered that the general pauperism of Ireland is only 1½ per cent. on the population; but that in Great Britain it is 4 per cent. This would account for the difference, if the insane pauper invariably belonged to the pauper ranks, previous to his calamity, and not in consequence of it. Many fall to pauperism through the terrible affliction of mental imbecility, or mental alienation, whom no misfortune, short of it, would bring upon the rates.

On the other hand, it is known that in England, from several causes, the cases of pauper lunacy have, of late years, been more fully recorded than formerly; and to this circumstance the Commissioners in Lunacy, refer in combating the common impression, that lunacy is on the increase in this country. “There can be very little doubt,” they state, “that the system of observation and inquiry adopted of late years, however imperfect it still may be, has led to the detec-

“tion and classification as insane of many persons formerly looked upon as ordinary paupers.”*

It appears, from official reports, that the large increase recorded in the number of pauper lunatics in Scotland, is ascribable to analogous causes; besides, in that country, the definition of the term “lunatic” appears to have been employed in a more comprehensive sense, latterly, than the corresponding term, “insane,” or “fatuous,” was, formerly.†

IV.—*Poor Rates Levied in the United Kingdom.*

In England a considerable portion of the sum raised as poor rates, is applied to local purposes quite irrespective of the object for which this tax was originally imposed; in Scotland the rate is applied wholly to relief; and in Ireland in addition to relief, the expenses under the Medical Charities Act are defrayed from the rates. Besides the poor rates there is an aggregate sum varying from 300,000*l.* to 400,000*l.* yearly received from various sources in aid of rates. The total sum levied and received during the ten years 1859-60 was 92,285,965*l.* (Table C, Appendix.) The amount raised in each country was as follows—

	£
England and Wales	77,960,190
Scotland.....	6,182,526
Ireland	8,143,249

Of the English amount, upwards of 18,000,000*l.* were disbursed for purposes wholly beside the relief to the poor. The table in the Appendix exhibits the levy, and the receipts in aid, for each year, and for each country, separately.

A large part of the receipts in aid of the English rates, arises from the sums annually voted in Parliament to pay Workhouse Schoolmasters' and Schoolmistress' salaries in full; and for the medical officer's salaries; to the extent of one-half of their amount. In Scotland a vote of 10,000*l.* is applied in aid of medical relief, yearly.

During ten years the total sums voted by Parliament were these; namely, for—

	£
England and Wales	1,246,000
Scotland	100,000
Ireland.....	11,000

(Table D, Appendix.)

V.—*Relief to the Poor.*

This charge consists of the cost of food, clothing, and lodging, to the paupers in workhouses; the cost of maintenance of pauper

* “Fifteenth Report of the Commissioners in Lunacy,” p. 78.

† “Thirteenth Report of the Board of Supervision,” p. xvii, *et seq.*

lunatics in asylums; except in Ireland, where that item is paid out of the county cess; and, of the value of the food and money given to out-door paupers; to these items must be added the cost of erecting and furnishing workhouses; the union and parochial officers' salaries, and other establishment charges, immediately connected with the local administration of relief. The total expenditure of the United Kingdom during the ten years was 67,341,921*l.*, which is equivalent to an annual charge of 4*s.* 9½*d.* per head, on the average population of the period. Discriminating the amounts we have the following statement. (Table E, Appendix.)

	£	s.	d.	
England and Wales	54,767,542	= 5	9½	per head on Population.
Scotland	5,917,634	= 3	11¼	„ „
Ireland	6,656,745	= 2	1¾	„ „

From this it appears that during the last ten years the ratio of relief, as measured on the population, was nearly *double* in Scotland, and *treble* in England, the proportion attained in Ireland.

Tracing the expenditure through the consecutive years, we find that in England the amount rose considerably in the middle of the period, but that it has been declining since; in Scotland the sum has *increased* every year; while in Ireland it has *decreased* every year, but the last, when it rose slightly. (Table E, Appendix.)

These contrasts are rendered more remarkable, on comparing the first with the last year of the series. Thus, in England, the sum expended in 1851, was 4,962,704*l.*; and 5,454,964*l.* in 1860—*increase* 492,260*l.*; in Scotland the similar items were 524,033*l.* and 654,527*l.*—*increase* 130,494*l.*; in Ireland, on the contrary, the earliest amount was 1,141,647*l.*, and the latest 454,531*l.*,—*decrease* 687,116*l.*

The character and rate of difference was therefore—

An <i>increase</i> in	{	England and Wales, of 10 per cent.	
	{	Scotland	„ 25 „
A <i>decrease</i> in		Ireland	„ 60 „

It will be of interest to compare the annual cost per pauper, taking the average of the ten years, in each country. The aggregate cost is the sum which in Table E, Appendix, is designated “relief of the poor,” it consists of (1) The expense of *individual relief*, that is, the cost of the food, clothing and necessaries, of the in-door and asylum paupers; and the value of the relief given in money or in kind to the out-door paupers; (2) The expense of *relief in common*, that is, the cost of building and maintaining workhouses and their establishments; the salaries of the union officers; and other local expenses consequent upon relief. The returns do not enable us to discriminate these two species of relief; but, the results computed on the total are these:—

Annual Cost per Pauper.		
	£	s. d.
England and Wales	6	2 8
Scotland	4	18 —
Ireland	6	18 10

Here Ireland is highest, and Scotland lowest. In the former country most of the relief is given in the workhouse ; this is the most costly form, individually ; but, the *least costly* in the ultimate issue. In the latter country the largest portion of the relief is out-door ; here, it is the least costly, individually ; but the *most costly* in the ultimate result.

The Scotch Poor Law Board have, in their fourteenth report,* shown that already Scotland exceeds the least pauperized divisions of England, in the amount of relief given. It is obvious, that if Scotland maintains, for a few years, its present rate of increase, it will soon equal, if not surpass, the most pauperized districts of the south.

One of the greatest evils of a mal-administered poor law, is the the depression of the wages of labour, by the agency of relief,—a result which may be produced designedly, or ignorantly. But, where relief is administered, as in Ireland, wholly in well-regulated workhouses, it appears hardly possible that any baneful disturbance of the labour market can follow, as a consequence. Is the English system equally free from this mischief ? England spends 3,000,000*l.* a-year upon *out-door* paupers ; exclusive of the charge for pauper lunatics in asylums, which in 1860, amounted to 420,000*l.* Can it be supposed, that so large a sum disbursed among the labouring population, and for the most part by guardians, who in their own districts are employers of labour, does not depress wages ?

The English returns alone distinguish the sums expended for in-door, from those disbursed for out-door relief. These are the amounts for 1851 to 1860.†

Years.	In-door Relief.	Out-door Relief.	Years.	In-door Relief.	Out-door Relief.
	£	£		£	£
1851	789,914	2,873,588	1856	1,139,902	3,239,534
'52	763,399	2,808,298	'57	1,088,558	3,152,278
'53	762,718	2,775,556	'58	1,067,803	3,117,274
'54	924,938	2,887,630	'59	954,509	2,923,199
'55	1,093,711	3,192,909	'60	912,360	2,862,753

The year 1856 was the highest of the ten. It is worthy of remark, that in contrasting 1860 with the maximum year, there was a decrease of 20 per cent. in the in-door relief ; but that the decrease

* P. 22, *et seq.*
† Annual Poor Rate Returns, in the Reports for those years.

in the out-door relief was only 12 per cent. The paupers appear to have left the workhouses quicker than they withdrew from the out-door relief lists.

In addition to the "relief to the poor," officially so called, there are disbursements made from the local taxes for objects of public charity. In England we have the cost of maintaining borough and county lunatic paupers out of the county or borough rate; in 1860, this is estimated to have been 42,000*l.*; and the cost of public vaccination defrayed out of the poor rates, which was 46,000*l.* in that year.* In Scotland there are no similar charges. In Ireland there is a large outlay under the Medical Charities Act; this amounted, in 1860, to 104,000*l.*† Further, as part of the cost of administering the poor laws, there are the expenses of the central Boards, and the district auditors' salaries, both items being paid by Parliament. The sums voted were these, namely,—

for England and Wales

	£	£
Central office	37,349	
Auditors' salaries	16,500	
	<u> </u>	53,849

for Scotland

Central office	—	5,580
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for Ireland

Central office	26,192	
Auditors	2,750	
	<u> </u>	28,942

United Kingdom	<u> </u>	88,371
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The other votes for England and Scotland are not included here, as they are repayments to the local authorities for certain disbursements, already charged in the relief to the poor.

The total disbursements for 1860, in respect of *public charity*, including under that term the expense of (1) Relief to the poor; (2) Lunatics supported by the county or borough rate, or by the county cess; (3) Irish medical charities; and (4) Central offices; were for—

	£
England and Wales	5,597,269
Scotland	660,107
Ireland	666,360
	<u> </u>
United Kingdom	6,923,736‡

* See Table H, Appendix.

† Table I, Appendix.

‡ Table F, Appendix.

The rate per head on the population, in regard to the sums collected under the head of *public charity*, is for—

	s.	d.
England and Wales.....	5	7 $\frac{3}{4}$
Scotland	4	2 $\frac{1}{2}$
Ireland	2	3 $\frac{1}{4}$
United Kingdom	4	9 $\frac{3}{4}$

We may say, that the public charity of the United Kingdom entails a tax upon the community of 5s. per head per annum, in round numbers; but, that in respect of Ireland, the tax is not half of that rate; even inclusive of the expenditure under the Medical Charities Act, and for the maintenance of the lunatic paupers out of the county cess.

Taking the Irish rate per head as unity, the relative proportions of the public charity expenditure are represented by the following figures:—

England and Wales	2·5
Scotland.....	1·9
Ireland	1·0

There is one item of Poor Law Expenditure not yet noticed; and which, though contingent on the administration of the poor laws, is not included in any of the foregoing accounts,—the “legal expenses.” In England, previous to 1834, the law costs were very heavy; ranging from 200,000*l.* to 300,000*l.* a-year. But during the last ten years they have only averaged 58,000*l.* In Scotland, the mean amount has been 10,000*l.* a-year, during the same term; while Ireland does not appear to have incurred any similar expense.

VI.—*Rate in the Pound, for Relief to the Poor, on Real Property.*

If the mode of assessing property, liable to the poor rates in the three divisions of the United Kingdom, were uniform, we should possess the immediate, and natural means of ascertaining the pressure of the tax, upon the rated property of each country.

But in England the assessment made by the overseers is well known to be worthless, for any purpose of comparison. It is greatly, but not uniformly, below the actual rental. In Scotland there are *five* different modes of assessment employed in the assessed parishes; the unassessed parishes supplying the necessary funds for relief by voluntary contributions. The estimated annual value of land and heritages in Scotland is not much below the property tax assessment of real property, under Schedule A. In Ireland the poor rate and the property tax are levied upon the very same assessment. By taking the property tax assessment of the United Kingdom, as a basis of comparison, we have, therefore, the best standard obtainable

under the circumstances, for exhibiting the relative pressure of the rates in the three kingdoms.

The calculation through which this is effected, is limited to the seven years 1854 to 1860; because, previous to 1854 there was no real property assessment in Ireland, under Schedule A. The following are the results of a computation of the rate in the pound for the “relief of the poor,” upon the data given in Tables E and G (Appendix), namely :—

	s.	d.	
England and Wales	1	1	in the £
Scotland	-	11½	„
Ireland	-	10¾	„

An average annual tax, at those rates, if laid upon the assessments under Schedule A, would have defrayed the whole of the *relief to the poor* in the three countries, during the seven years. It is worthy of remark that, however diverse may be the other aspects of pauperism in the three kingdoms, there is a nearer approach to equality in this view of the subject; England only exceeding Scotland by 1½*d.*, and Ireland by 2¼*d.* in the pound.

If the aggregate sums assessed to the income tax, under Schedules A (real property), B (farmers’ profits), and D (profits of trades and professions), may be taken, when considered in relation to the amount of population, as a sufficient exponent of the wealth of the United Kingdom, it will be found that the pauperism is *inversely* as the poverty. This is shown in respect of 1860 by the following figures :—

	Assessment in Millions.		Value per Head.
	£		£ s.
England and Wales.....	237·0	=	11 17
Scotland	29·0	=	9 13
Ireland	20·5	=	3 5

England, which ranks highest in wealth, is deepest in pauperism; Ireland, lowest in wealth, is the least burdened with paupers; and Scotland stands between the two countries, both in respect of wealth and pauperism; but not at mid-distance—coming under each category, much nearer to England, than to Ireland.

VII.—Conclusion.

It may be urged in view of these facts, that the pauperism of the three Kingdoms, has arisen under conditions, and exists in media so dissimilar, that no useful conclusions can be drawn from the statistics alone. It is probable, no doubt, that when all the circumstances are considered, the figures may appear in a modified light. Yet, when it is found that the same anomalies emerge upon a comparison of districts similar in respect of “the material condition,

“the habits, and modes of life,”* we cannot suppose the significance of these figures will be much changed, when the facts are weighed with all their qualifications.

In addition to the instructive comparisons already quoted from the Scotch reports; there is, in the twelfth volume, a parallel drawn between the pauperism of the Scotch Highlands and that of Ulster and Connaught. The Scotch and Irish districts were selected as analogous. In the Highlands it was found that 1 in 18 of the population were receiving relief; but that in the Irish provinces the proportion was only 1 in 218. The Highlands were *twelve* times more pauperized than Ulster and Connaught; but in the one district, the relief was nearly all *out-door*; and in the other, nearly all *in-door*.

There is no place south of the Tweed in which the workhouse is so little employed in testing applications for relief, as Wales; there, the out-door pauperism is *twelve* times as much as the in-door. Now, the expenditure of England alone, has, subsequent to the passing of the Poor Law Amendment Act of 1834, greatly *decreased*; while that of Wales has *increased*. In 1834, the relief in Wales, as measured by the population, was 2s. 1d. per head *below* England; at present (1860), it is 8d. per head *above* it. In other words, Wales is now 11 per cent. *more* burthened than England, instead of 22 per cent. *less*. But, in England the in-door pauperism is to the out-door, as 1 to 5; instead of 1 to 12, as in the principality.

The Commissioners who were appointed in 1832, to inquire into the operation of the English poor laws, enunciated the great principle for keeping the stream of public charity within safe bounds, in these words:

“It may be assumed, that in the administration of relief, the public is warranted in imposing such conditions on the individual relieved, as are conducive to the benefit either of the individual himself, or of the country at large, at whose expense he is to be relieved.

“The first and most essential of all conditions, a principle which we find universally admitted, even by those whose practice is at variance with it, is, that his situation on the whole shall not be made really or apparently so eligible as the situation of the independent labourer of the lowest class. Throughout the evidence it is shown, that in proportion as the condition of any pauper class is elevated above the condition of independent labourers, the condition of the independent class is depressed; their industry is impaired, their employment becomes unsteady, and its remuneration in wages is diminished. Such persons, therefore are under the strongest inducements to quit the less eligible class of labourers

* “Thirteenth Report of the Scotch Poor Law Board.”

“and enter the more eligible class of paupers. The converse is the effect when the pauper class is placed in its proper position, below the condition of the independent labourer. Every penny bestowed, that tends to render the condition of the pauper more eligible than that of the independent labourer, is a bounty on indolence and vice.”*

More than a quarter of a century has elapsed since these words were published. It would appear to be a practical and important public question to ascertain how far the neglect of the rule they embody, has been the cause of the remarkable contrasts, which the statistics of pauperism in the United Kingdom reveal. Further, we may reasonably ask, if Ireland has, under the judicious administration of her poor laws, reduced pauperism to a quantity which, at the present time, is less than *one* per cent. of the population, under what conditions can we hope that similar results may be achieved for England and Scotland?

Examples of the judicious employment of the workhouse, in the reduction of pauperism, are not confined to Ireland. There are, in various parts of England, unions, where the guiding principle of the amended Poor Law has been, for many years, consistently applied, by the local authorities. In those unions, pauperism has been reduced to a point, so far below that, which, at all times, prevails in the circumjacent districts, as to afford irrefragable proof of the efficiency of the workhouse system, when it is used, with discretion and firmness, to its proper end—discriminating real, from simulated destitution. It is no exaggeration to describe the excessive pauper-rate, fostered by the mal-administration of negligent unions, as a public scandal, and a social wrong.

Whatever light additional statistics may shed upon the interesting questions which are suggested by the scope of this paper, information must also be sought beyond its technical domain, for their satisfactory solution.

* “Report of Commissioners for Inquiry into the Poor Laws,” 1834, p. 228.

APPENDIX.

TABLE A.—*Statement of the Average Number of Paupers Relieved, in the United Kingdom, on One Day, in each of the Ten Years, 1851 to 1860, with the Ratio of Pauperism to the Estimated Population.*

Years.	England and Wales.				Scotland.	
	In-door Paupers.	Out-door Paupers.	Total.*	Paupers.	Paupers In-door and Out-door.	Paupers.
				Per cent.		Per cent.
1851.....	114,367	826,948	941,315	5·3	122,416	4·2
'52.....	111,323	804,352	915,675	5·0	117,693	4·0
'53.....	110,148	776,214	886,362	4·8	117,535	4·0
'54.....	111,635	752,982	864,617	4·6	120,626	4·1
'55.....	121,400	776,286	897,686	4·8	121,770	4·1
1856.....	124,879	792,205	917,084	4·8	121,522	4·0
'57.....	122,845	762,165	885,010	4·6	119,569	3·9
'58.....	122,613	786,237	908,886	4·7	123,191	4·0
'59.....	121,232	744,214	865,446	4·4	122,013	3·9
'60.....	113,507	731,126	844,633	4·3	120,906	4·0
10 Years } average }	117,395	775,276	892,671	4·7	120,724	4·0

Years.	Ireland.				United Kingdom.	
	In-door Paupers.	Out-door Paupers.	Total.†	Paupers.	Paupers In-door and Out-door.	Paupers.
				Per cent.		Per cent.
1851.....	217,949	8,503	226,452	3·5	1,290,183	4·7
'52.....	167,372	3,225	170,597	2·6	1,203,965	4·4
'53.....	130,047	3,003	133,050	2·1	1,136,947	4·1
'54.....	95,922	1,622	97,544	1·5	1,082,787	3·9
'55.....	79,747	3,273	83,020	1·3	1,102,476	3·9
1856.....	63,477	876	64,353	1·0	1,102,959	3·9
'57.....	50,877	967	51,844	0·9	1,056,423	3·7
'58.....	45,781	1,271	47,052	0·8	1,079,129	3·8
'59.....	40,369	1,248	41,617	0·7	1,029,076	3·6
'60.....	41,271	2,001	43,272	0·7	1,008,811	3·5
10 Years } average }	93,281	2,599	95,880	1·5	1,109,275	3·9

* England and Wales, exclusive of county and borough pauper lunatics; this class has averaged latterly about 1,700.

† Ireland, exclusive of pauper lunatics maintained by the county cess; in 1857 this class was returned as 3,824.

TABLE B.—Number of Pauper Lunatics, &c., Relieved in One Day in Great Britain, in 1859-60 ; and in Ireland, in 1857.

ENGLAND AND WALES.	Number of Pauper Lunatics.	
	Average number on the 1st January, 1859 } and 1860.....	30,930
	Estimate for parishes not returned.....	440
	Borough and county pauper lunatics (18 } 19 Vict., c. 105).....	1,698
	Total	33,068
SCOTLAND.	Number of Pauper Lunatics.	
	Average number on the 1st January, 1859 } and 1860	5,103
	Total	5,103
IRELAND.	Number of Pauper Lunatics.	
	Number on 1st January, 1857, in district } asylums	3,824
	In workhouses.....	1,707
	,, houses of industry.....	108
	Total	5,639
	Grand Total of the United Kingdom	43,810

Note.—Every description of insane pauper, besides lunatic paupers, is included in this table.

TABLE C.—*Statement of the Sums Raised as Poor Rates in the United Kingdom and of Sums Received in aid of the Poor Rates; Ten Years, 1851-60.*

Years.	England and Wales.			Scotland.		
	Poor Rates Collected.	Other Receipts.	Total.	Poor Rates Collected.	Other Receipts.	Total.
	£	£	£	£	£	£
1851.....	6,778,914	181,408	6,960,322	492,098	63,947	556,045
'52.....	6,552,298	318,070	6,870,368	479,499	62,390	541,889
'53.....	6,552,412	282,971	6,805,383	491,394	63,306	554,700
'54.....	6,973,220	278,061	7,251,281	504,082	66,631	570,713
'55.....	7,864,149	310,805	8,174,954	549,463	64,960	614,423
1856.....	8,201,348	295,110	8,496,458	588,067	62,934	651,001
'57.....	8,139,003	301,987	8,440,990	612,485	57,368	669,853
'58.....	8,188,880	303,240	8,492,120	606,671	61,802	668,473
'59.....	8,108,222	326,566	8,434,788	622,101	61,812	683,913
'60.....	7,715,948	317,578	8,033,526	615,409	56,107	671,516
10 Years	75,044,394	2,915,716	*77,960,190	5,561,269	621,259	6,182,526

Years.	Ireland.			The United Kingdom.		
	Poor Rates Collected.	Other Receipts.	Total.	Poor Rates Collected.	Other Receipts.	Total.
	£	£	£	£	£	£
1851.....	1,039,173	66,703	1,105,876	8,310,185	312,058	8,622,243
'52.....	1,109,630	107,548	1,217,178	8,141,427	488,008	8,629,435
'53.....	1,009,493	44,316	1,053,809	8,023,299	390,593	8,413,892
'54.....	925,154	98,078	1,023,232	8,402,456	442,770	8,845,226
'55.....	835,894	12,151	848,045	9,249,506	387,916	9,637,422
1856.....	723,204	4,935	728,139	9,512,619	362,979	9,875,598
'57.....	585,583	7,078	592,661	9,337,071	366,433	9,703,504
'58.....	525,595	6,942	532,537	9,321,146	371,984	9,693,130
'59.....	523,065	4,859	527,924	9,253,388	393,237	9,646,625
'60.....	509,380	4,468	513,848	8,840,737	378,153	9,218,890
10 Years	7,786,171	357,078	8,143,249	88,391,834	3,894,131	*92,285,965

* 18,239,512*l.* was spent in England and Wales, out of this amount, for local purposes quite unconnected with relief to the poor.

TABLE D.—*Statement of the Sums Voted by Parliament to defray the Expenses of the English, Scotch, and Irish Poor Law Boards; and of Sums Voted in Aid of Poor Rates; Ten Years, 1851-60.*

Years.	England and Wales.			Scotland.		
	Central Expenses.	Local Expenses.	Total.	Central Expenses.	Local Expenses.	Total.
	£	£	£	£	£	£
1851.....	34,136	128,500	162,636	3,800	10,000	13,800
'52.....	32,754	113,500	146,254	3,800	10,000	13,800
'53.....	33,604	115,500	149,104	3,770	10,000	13,770
'54.....	34,073	115,500	149,573	3,790	10,000	13,790
'55.....	35,728	117,500	153,228	3,880	10,000	13,880
1856.....	36,410	117,500	153,910	3,930	10,000	13,930
'57.....	36,628	126,500	163,128	3,900	10,000	13,900
'58.....	37,221	133,500	170,721	5,759	10,000	15,759
'59.....	37,643	136,500	174,143	5,452	10,000	15,452
'60.....	37,349	141,500	178,849	5,580	10,000	15,580
Total 10 Years }	355,546	1,246,000	1,601,546	43,661	100,000	143,661

Years.	Ireland.			Total of the United Kingdom.
	Central Expenses.	Local Expenses.	Total.	
	£	£	£	£
1851.....	46,182	—	46,182	222,618
'52.....	46,465	—	46,465	206,519
'53.....	55,487	—	55,487	218,361
'54.....	48,131	—	48,131	211,494
'55.....	40,794	—	40,794	207,902
1856.....	34,543	—	34,543	202,383
'57.....	29,215	2,750	31,965	208,993
'58.....	28,010	2,750	30,760	217,240
'59.....	23,715	2,750	26,465	216,060
'60.....	26,192	2,750	28,942	223,371
Total 10 Years }	378,734	11,000	389,734	2,134,941

TABLE E.—*Statement of Sums Expended in Relief to the Poor in the United Kingdom, in the Ten Years from 1851-60; and of the Rate per Head of Expenditure.*

Years.	England and Wales.			Scotland.*		
	Population.†	Relief to the Poor.	Rate per Head.	Population.‡	Relief to the Poor.	Rate per Head.
		£	s. d.		£	s. d.
1851.....	17,927,609	4,962,704	5 6½	2,888,742	524,033	3 7½
'52.....	18,205,000	4,897,685	5 4½	2,916,000	522,209	3 7
'53.....	18,402,000	4,939,064	5 4½	2,942,000	530,984	3 7¼
'54.....	18,617,000	5,282,853	5 8	2,969,000	562,888	3 9½
'55.....	18,840,000	5,890,041	6 3	2,996,000	595,140	4 0
1856.....	19,043,000	6,004,244	6 3¾	3,023,000	619,196	4 1
'57.....	19,207,000	5,898,756	6 1¾	3,050,000	627,512	4 1¼
'58.....	19,361,000	5,878,542	6 -¾	3,077,000	633,533	4 1½
'59.....	19,578,000	5,558,689	5 8¼	3,103,000	647,612	4 2
'60.....	19,837,000	5,454,964	5 6	3,130,000	654,527	4 2
	18,901,761 (Average.)	54,767,542	5 9½	3,009,474 (Average.)	5,917,634	3 11¼

Years.	Ireland.			United Kingdom.		
	Population.†	Relief to the Poor.	Rate per Head.	Population.	Relief to the Poor.	Rate per Head.
		£	s. d.		£	s. d.
1851.....	6,552,386	1,141,647	3 5¾	27,368,737	6,628,384	4 10
'52.....	6,474,000	883,268	2 8¾	27,595,000	6,303,162	4 5
'53.....	6,396,000	785,718	2 5½	27,740,000	6,255,766	4 6
'54.....	6,318,000	760,153	2 4¾	27,904,000	6,605,894	4 8½
'55.....	6,240,000	685,259	2 2¼	28,076,000	7,170,440	5 1
1856.....	6,162,000	576,390	1 10½	28,228,000	7,199,830	5 -¾
'57.....	6,084,000	498,889	1 7½	28,341,000	7,025,157	4 11½
'58.....	6,006,000	457,178	1 6¼	28,444,000	6,969,253	4 10½
'59.....	5,928,000	413,712	1 4¾	28,609,000	6,620,013	4 7½
'60.....	5,850,000	454,531	1 6½	28,817,000	6,564,022	4 6½
	6,193,038 (Average.)	6,656,745	2 1¾	28,104,273 (Average.)	67,341,921	4 9½

* The expenditure in Scotland as here given, is less by the "law expenses" and the cost of "general sanitary measures;" the corresponding items are excluded from the English returns.

† The decrease in the population of Ireland has been assumed to follow at the same rate for each year.

‡ Estimated for 1852 to 1860, by the Board of Supervision; it is in excess of the truth, for the actual census of 1861 gives 3,061,251 as the number at the present time.

TABLE F.—*Statement of the Total Sum Expended in respect of Public Charity in the United Kingdom in the Parochial Year 1860; distinguishing the Pauperizing from the Non-Pauperizing Charity; and the portion which is defrayed by the Local from the portion paid by Parliamentary Votes.*

	Cost of Public Charity in 1860.			
	(a) Pauperizing.		(b) Non-pauperizing.	
	Relief to the Poor.	Lunatic Poor Supported by County or Borough Rate, or by County Cess.	Public Vaccination: Fees to Vaccinators.	Medical Aid to the Poor under the Medical Charities Act (Ireland).
United Kingdom.				
England and Wales ...	£ 5,454,964	£ 42,450*	£ 46,006	£ —
Scotland	654,527	—	—	—
Ireland	454,531	78,640†	Included in the Medical Charities.	} 104,247
Totals.....	6,564,022	121,090	46,006	104,247

	Cost of Public Charity in 1860.		Rate per Head, of Total Cost on the Population.	
	Salaries of District Auditors, and the Expense of the Central Boards Paid by Parliament.	Total Cost Defrayed by Local Taxation and Parliamentary Votes.		
	£	£	s.	d.
United Kingdom.				
England and Wales ...	53,849‡	5,597,269	5	7 $\frac{3}{4}$
Scotland	5,580	660,107	4	2 $\frac{1}{2}$
Ireland	28,942§	666,360	2	3 $\frac{1}{2}$
Totals.....	88,371	6,923,736	4	9 $\frac{3}{4}$

* Estimated at 25*l.* per head on 1,698 pauper lunatics.

† „ 20*l.* „ 3,932 „

‡ 16,500*l.* of this is the auditor's share.

§ 2,750*l.* „ „

TABLE G.—*Statement of the Annual Value of Real Property in the United Kingdom in each of the Seven Years from 1854 to 1860. (Schedule A., Income and Property Tax.)*

Years.	England and Wales.	Scotland.	Ireland.	United Kingdom.
	£	£	£	£
1851	—	—	—	—
'52	—	—	—	—
'53	—	—	—	—
'54	99,274,309	11,947,791	11,767,810	122,989,910
'55	100,835,328	12,144,437	11,892,120	124,871,885
'56	101,938,175	12,428,781	11,878,545	126,245,501
'57	103,603,068	12,543,811	11,952,285	128,099,164
'58	109,978,265	13,809,321	12,826,739	136,614,325
'59	110,923,084	13,885,457	12,858,701	137,667,242
'60	112,082,749	13,974,080	12,893,829	138,950,658
7 Years' (average) }	105,519,283	12,961,954	12,259,718	130,776,955

Note.—Abstracted from Parliamentary Paper, No. 592, Sess. 1860.

TABLE H.—*Statement of the Annual Expenditure under the Medical Charities Act of Ireland; and of the Number of Poor Persons who have received Medical Aid; and of the Number Vaccinated under it.*

Years ended 30th September.	Expenses under the Medical Charities Acts.	Number of Poor Persons attended to,			Number of cases of Vaccination.
		At Dispensaries.	At Home.	Total.	
	£				
1853	88,440	557,033	133,378	690,411	43,332
'54	89,707	557,325	137,700	695,025	52,844
'55	89,388	583,547	149,016	732,563	46,711
'56	90,236	594,673	146,564	741,237	84,131
1857	90,460	600,022	154,621	754,643	47,855
'58	92,725	601,749	153,829	755,578	54,984
'59	99,336	616,131	160,260	776,391	140,411
'60	104,247	596,325	165,308	761,633	107,305
Totals ...	744,539	4,706,805	1,200,676	5,907,481	577,573

Note.—In addition to the workhouse infirmaries and workhouse fever hospitals, “there are 717 dispensary districts in Ireland, with 775 medical officers appointed and paid from the poor rate to attend gratuitously on poor persons needing medical aid and medicine, either at the patient’s home or at the dispensary station.”—“Fourteenth Annual Report,” p. 72.

TABLE I.—*Statement of the Cost of Public Vaccination, and of the the Number of Poor Persons Successfully Treated by the Public Vaccinators in England and Wales.*

Years.	1 Cost of Public Vaccination paid out of the Poor Rates.	2 Number of Poor Persons successfully Vaccinated.	3 Number of Births Registered in the Kingdom.	4 Ratio per Cent. of (2) to (3).
	£			Per cent.
1851	25,248	338,947	592,347	57·2
'52	25,895	397,128	601,839	66·0
'53	27,576	366,593	601,223	61·0
'54	45,729	677,886	623,699	108·7
'55	54,727	448,519	623,181	72·0
1856	44,503	422,281	640,840	65·9
'57	41,256	411,268	649,963	63·3
'58	40,761	455,004	654,914	69·5
'59	46,472	445,020	669,834	66·4
'60	46,006	485,927	689,060	70·5
Totals ...	398,173	4,448,573	6,346,900	70·1

Note.—In regard to the cost, this return relates to the year ended at Lady-day ; but in regard to the numbers born and vaccinated, to that ended at Michaelmas ; therefore the sum for any year in the first column, does not exactly represent the payments for the cases of vaccination in the second.

*The RESOURCES of POPULAR EDUCATION in ENGLAND and WALES :
PRESENT and FUTURE. By HORACE MANN, Esq.*

[Read before the Statistical Society, 4th March, 1862.]

It is not my purpose, in this paper, to discuss the “revised code,” but to present facts which must needs be of considerable service to all who may wish to consider comprehensively the larger questions which the discussion of that measure cannot fail to raise. For it is now, I think, evident that the prevailing controversy cannot be confined to the operation of the code itself; but must range over the whole subject of popular education. A crisis has clearly been reached in the educational policy of the country; and the code is a consequence of this crisis rather than the occasion of it. The same may be said of the Report of the recent Education Commission; which rather gives sanction and prominence to facts and opinions already formed and ascertained than makes any new discoveries or suggestions. The vastness, and the increasing magnitude, of the drain upon the public purse, have forced upon us a review of our entire position; and the object of this paper will be to present, in a condensed form, the most important statistics relating to the present position and future policy of the country with respect to the provision for popular education.

With this view I propose to consider chiefly the following points: designedly omitting others, of perhaps equal interest, which cannot be comprised within the limits of a paper suitable for this Society.

I. *Our existing provision*; more especially its relation to that of former periods and of other countries—its nature and value—its cost—and the sources from which it is supplied.

II. *Our future provision*; with especial reference to possible changes and additional resources.

I.

According to the census of education in 1851, there were at that time 2,144,378 children in the *day* schools of *England and Wales*. When, in the Report on that census, it was stated as an inevitable inference from this fact that “very few children are *completely* un-instructed,” and that “nearly all, at some time or other of their childhood, see the inside of a schoolroom, although some do little more,” this result appeared so incredible to one of Her Majesty’s Inspectors of Schools that he at once pronounced the census itself to be inaccurate, and the numbers mentioned a gross exaggeration. We

now learn from the Report of the Education Commissioners that, according to the best information they could obtain, the number of day scholars in 1858 in England and Wales was 2,535,462. This latter number is obtained, to some extent, by estimates liable to error; but there does not seem to be room for any very important miscalculation. One mistake, however, which requires correction, has been acknowledged by the Commissioners with respect to the Congregational Schools, from some of which no returns were received. It seems best, therefore, to substitute in this case the figures of the census of 1851; the effect of which will be to cause an addition of 17,023 to the above number—making the total 2,552,485. The proportion, therefore, of scholars to population, which was 1 in 8·36 according to the census of 1851, had improved to 1 in 7·65, according to the more recent inquiry; and the Commissioners infer that “the name of almost every child is, at some time or other, on the “books of some school, at which it attends with more or less “regularity.”

With our numerical standard, therefore, we may be very well satisfied. Both as to rate of progress and actual attainment the figures are eminently encouraging. The increasing proportions since 1818 have been from—

1 in 17·25 in 1818 ;

1 ,, 11·27 ,, 1832 ;

1 ,, 8·36 ,, 1851; and

1 ,, 7·65 ,, 1858.

And, compared with other principal European countries, our proportion of 1 in 7·65 is exceeded only by that of Prussia, under a compulsory system, where it is 1 in 6·27. The proportion in France is 1 in 9·0, and that in Holland 1 in 8·11. Unless, therefore, a wider range of age has been taken in this country than in the others, the comparison is by no means to our discredit.

Of the 2,552,000 *day scholars*, about 1,692,000 were (in 1858) in *public*, and 860,000 in *private* schools. Probably about 50,000 of the former and 500,000 of the latter may have belonged to the middle and upper classes of society; leaving in round numbers 2,000,000 belonging to the rest of the community, viz. :—

In public schools	1,640,000
„ private „	360,000*
	<hr/>
	2,000,000
	<hr/>

* The Royal Commissioners (from observations made in the selected districts), compute the number of children “in private schools of the class for which annual

The whole of my further remarks will apply exclusively to this residue, which constitutes the section of society referred to when the phrase "*popular education*" is employed.

In the *public popular day schools*, about 30 per cent. of the children remain beyond *ten* years of age; about 20 per cent. beyond 11 years; and about 11 per cent. beyond 12 years. In the private popular day schools the percentage is probably somewhat higher, as they are frequented by the children of the more thriving artisans, &c. Still, nearly 70 per cent. of the entire number of children of the working class leave school before attaining the age of 10.

The period during which a child is under tuition is about four years, on the average; some, of course, spending a longer time than this in school, and some a shorter. The attendance, however, during the period over which the tuition extends, is not regular; and it seems that the irregularity is increasing. In the specimen districts of the Education Commissioners it was found that the number of children who attended 176 days per annum was only 47·4 per cent. in 1853, and had since then constantly diminished till it was only 39·4 per cent. in 1857.

If we endeavour to discriminate between different kinds of public elementary day schools, we find that out of about 24,000 there are 10,435 containing 1,154,050 scholars, which are or have been assisted by the Government grant, and are liable to inspection. To these must be added 999 schools, with 47,748 scholars, which are almost entirely supported by taxation. The number of schools at present receiving annual grants is, however, less than this, viz., 6,897, containing 917,225 children. The result is, that there are 16,107 schools with 675,185 scholars, which do not at present receive aid; though some of them are liable to inspection on account of past assistance.

We should also find that most of the schools, both inspected and uninspected, are connected with some religious communion; viz., in the following proportions:—

"grants are intended," at two-thirds of the whole, viz., 573,536., I have ventured to prefer an estimate based upon facts ascertained at the Census of 1851, which appears more consistent with the numbers and school-time of the children of the middle and upper classes, even assuming these classes to constitute no more than a fifth of the population.

Religious Communion, &c.	Inspected Schools.	Uninspected Schools.	Total.	
			Schools.	Scholars.
Established Church	5,583	13,966	19,549	1,187,086
Roman Catholics	253	490	743	85,866
Wesleyans	263	182	445	59,873
Congregationalists*	—	453	453	50,186
Baptists	—	144	144	9,388
Miscellaneous	—	247	247	22,931
British†	687	444	1,131	151,005
	6,786	15,926	22,712	1,566,335

* The numbers given by the Royal Commissioners (388 schools and 33,163 scholars) are confessedly inaccurate I have, therefore, adopted the figures of the census of 1851, as supplying a better, though still, in all probability, an inadequate account.

† Most of the British schools are connected with religious communions, but the instruction, though religious, is not sectarian.

About 43,000 scholars were found in ragged schools, orphan schools, Birkbeck schools, and factory schools.

Others belong almost exclusively to the State, viz.:—

Schools.	Schools.	Scholars.
Pauper schools	869	35,303
Prison „ „	47	2,683
Naval and military schools....	83	9,762
	999	47,748

Turning, now, to the question of *Cost*, we learn that (apart from the sums spent upon administration, inspection, and school-buildings), the amount requisite to maintain the 24,000 public popular day schools in their present state is about 2,000,000*l.*; the calculation being, that each child costs, in inspected schools, 30*s.* a-year, and in uninspected schools perhaps a third less. To this must be added, probably, about 350,000*l.*, on account of the popular private schools.

The sources from which the annual income necessary to defray this cost is obtained are chiefly three, viz.:—

1. Payments by the parents.
2. Private benevolence.
3. Public taxation.

The great mass of the provision is supplied by the combination of

all three; but a certain proportion of it is due to one or another exclusively. Thus, the self-supporting private schools contain (according to the preceding estimate), 360,000 scholars; and the public schools which are wholly supported by the State contain 47,748 scholars; leaving about 1,592,000 children, the cost of whose education is defrayed from some, or all, of the various sources in conjunction. Of the total cost of the entire number of public popular day schools, viz., 2,000,000*l.*, as above mentioned, 26 per cent. seems to be furnished by the parents; 46 per cent. by subscription, endowment, or other form of private assistance; and 28 per cent. by taxation.

The amount of the Parliamentary grant for the year 1859 was 836,920*l.*, the chief portion of which was divided between 32 training institutions and 6,897 day schools, with 917,255 scholars. Consequently, the number of public popular day schools which participated in the grant was less than the number which derived no benefit from it; the unassisted public day schools numbering 16,067. But the number of scholars in the aided schools was more by 245,862 than in the unaided schools.

It may be useful now to pass from these general statistics in order to advert to those which bear upon some of the questions which are likely to assume prominence in the wide review, which seems inevitable, of our educational policy.

1. Of these questions, obviously the most important is that of the practical results of the present system. Are these results such as prove that a fair equivalent is rendered for the expenditure incurred? The statistics upon this point contributed by the Educational Commissioners are, that only about 1 in 4 of the scholars in the best schools is successfully educated in reading, writing, and arithmetic. Mr. Norris, one of the Inspectors of Schools, puts the proportion of the successfully educated at 1 in 8 of those who attend; and other official reports mention, that in many cases the knowledge acquired is forgotten in a short time after removal from school. Perhaps these statements are not altogether of the nature of statistical facts; as their value is partly dependent on the impressions of the observers; but the results receive some corroboration from other facts of a more positive character. Thus, it appears that "out of 12,402 scholars in "317 evening schools in the ten specimen districts, no less than "10,706, or 83·37 per cent., had attended day schools for various "periods; yet almost all of them were learning to read, write, and "cypher."*—Again, the Civil Service Examinations supply some facts which bear upon this point. For example, the examination of letter carriers, under the Post Office, has never extended beyond the most

* "Report of the Education Commission," p. 42.

simple exercises in the elementary acquirements of reading, writing, and the first four rules of arithmetic; yet rejections were formerly numerous, and the Postmaster-General has recently reduced the test for these officers to the mere exercise of writing their own names and addresses, reading the directions of twenty letters, and adding a few figures together. As most of the persons who apply for these situations must have passed some years at school, it seems evident that if they are really unable to comply with the meagre demands of the abrogated test, and if they are fair representatives of their class, a very great deal of money must have been wasted upon their instruction, so far as secular knowledge is concerned. These statistics, therefore, appear to confirm, to some extent, the accuracy of the opinions founded on the personal observations of inspectors,—that whatever may be the permanent good effected by the daily moral training which the children undergo, the knowledge of the elementary and most essential subjects is either very imperfectly acquired at school or very rapidly and completely forgotten when attendance at school has ceased.—Other evidence on the point in question is to be found in the Registrar-General's Returns of the number of persons who sign the marriage register with marks. These returns throw some light on the state of elementary education ten or twelve years ago; and though not supplying an exact measure of the positive amount of ignorance, are very valuable as showing comparative results at different periods. The following table exhibits rather a cheering rate of progress,—the proportion of marks having declined from 40·8 per cent. in 1841, to 30·9 per cent. in 1860; though it may still, of course, be held that the positive extent of failure is too great considering the magnitude of the efforts made some ten or twelve years back.

Signatures in Marriage Registers, 1841-60.

Years ended 31st December.	To 100 Married, the Proportion who Signed the Marriage Register with Marks.		
	Males.	Females.	Mean.
1841	32·7	48·8	40·8
'42	32·0	47·9	40·0
'43	32·7	49·0	40·9
'44	32·4	49·2	40·8
'45	33·2	49·6	41·4
1846	32·6	48·2	40·4
'47	31·2	45·5	38·4
'48	31·2	45·4	38·3
'49	31·0	45·9	38·5
'50	31·1	46·2	38·7
1851	30·8	45·3	38·1
'52	30·5	44·6	37·6
'53	30·4	43·9	37·2
'54	30·0	42·7	36·4
'55	29·5	41·2	35·4
1856	28·8	40·2	34·5
'57	27·7	38·8	32·3
'58	27·0	37·6	32·3
'59	26·7	37·6	32·2
'60	25·2	36·2	30·9

2. Another highly important question relates to the distribution of the Government grant according to the necessities of the people. Is the assistance rendered by the public given to those by whom it is really required? It is said, for example, that the State's contributions afford aid, to a considerable extent, to localities which could and would do without it, or with less of it; and are withheld from the small poor parishes in which it is really required. In illustration, an account is given by the Royal Commissioners (from facts ascertained by the Rev. N. Stephenson), of 655 parishes, having each less than 600 population, in Herefordshire, Devonshire, and Somersetshire, from which it appears that the number of such parishes receiving aid from the Privy Council is—

In Herefordshire	5	out of	130
„ Devonshire	2	„	245
„ Somersetshire	1	„	280
	—		—
	8		655
	—		—

And, as a general result, it is stated that while the average of aided parishes is 1 in 2·97 of those containing more than 600 inhabitants, it is only 1 in 26·44 of those containing less than 600.

It must be borne in mind, however, in endeavouring to appreciate correctly the force of these facts, that, as is pointed out by the Royal Commissioners, the very smallness of these parishes must, of necessity, place them at a disadvantage; from which it seems to be possible that the fault may rest upon the parochial system rather than upon the plan with which it is, in these cases, incompatible.

3. A third point, of some interest if not of quite so much importance as the previous two, is whether the principle of proportioning the aid supplied from the public taxes to the amount raised by voluntary contributions secures an equitable distribution of the grant amongst the various religious communions. Such a principle, it is evident, will not bear universal application. The mere fact that a wealthy man is willing to give 1,000*l.* to build a schoolroom does not suffice to give him a claim upon the rest of the community for the remainder of the needful funds. An opulent Jew, for instance, could not thus be assisted in the establishment of schools to teach his faith to the children of Christian parents, even though attendance at the synagogue were not made compulsory. The operation of the principle, therefore, must clearly be, to some extent, limited; and accordingly the administrators of the present system have imposed such a limitation by exacting, as a condition of public aid, “that the “religious denomination of the new school shall be suitable to the “families relied upon for supplying scholars.” The question, therefore, is—how the principle, thus restricted in its application, has worked; and the statistics upon this point show that the proportion of the Government grant obtained by the various religious communions in England and Wales was as follows, down to the end of the year 1860 :—

	Amount Received.	Proportion per Cent. of the Entire Grant to Religious Bodies.
	£	Per Cent.
Established Church	3,070,432	78·6
Wesleyan Methodists	232,222	5·9
Congregationalists	—	—
Roman Catholics	166,332	4·3
Other communions.....	—	—
British schools	436,657	11·2
Total amount distributed amongst the religious communions	3,905,643	100·0

The Established Church, therefore, has obtained nearly 80 per cent. of the amount raised by taxation; while all other religious bodies (credit being given them for the amount awarded to British

schools), have obtained rather more than 20 per cent.; a result which might have been anticipated from the vastly superior wealth possessed by the members of the church. These proportions, however, by no means express the relative positions of the various communions with respect to the number of adherents; and the question may still remain, whether the assistance of the State should be given according to the wealth of a religious body or according to the numbers requiring instruction. I say this may be one of the questions raised by a general revision of the present system; and the following figures may help in the discussion of it.

Dividing the population into three classes,—(1) Those who attend the services of the Established Church; (2) Those who attend the services of other religious communions; and (3) The non-attendants—the proportions per cent., in 1851, of the population able to attend, were estimated as follows :*—

Established church	30·1 per cent.
Other communions	27·8 ,,
Non-attendants	42·1 ,,
	<hr/>
	100·
	<hr/>

This, however, refers to the whole population, rich and poor together. The proportions in the class for which popular day schools are designed would very likely be different; probably (as the strength of dissent lies principally in the poorer classes), showing a diminution in the percentage of attendants at the Established Church, and an increase in that of the attendants belonging to other communions. On the other hand, it must be remembered that the proportion of non-attendants given above refers to a particular Sunday—that many of this number attend occasionally, and some habitually, at the services of one or another of the religious communions,—and that probably the number of such occasional attendants is greater in the case of the Established Church than in that of the other communions. It will be obvious, however, that, notwithstanding this last-mentioned circumstance, the distribution of public money is not proportionate to the numerical position of the different bodies,—the Established Church obtaining 80 per cent. of the grant, and the other communions 20 per cent. If attention were confined to Wales, the difference

* I reproduce these figures without any hesitation, though I am aware that the data upon which they are founded have been subjected to cavil by some to whom the results are offensive. The objections referred to were entirely hypothetical; and the returns have received ample corroboration from subsequent investigations. It is only to be regretted that a similar inquiry, pursued by the same method, was not undertaken (as recommended by this Society) in connection with the Census of last year.

would probably appear still more remarkable; as there the services of the Church are attended by only 12 or 13 per cent. of the population, against 40 per cent. who attend other services; while the number of church schools is 878 (with 52,000 scholars), against 228 belonging to other communions (containing 22,000 scholars). I have not been able to ascertain the comparative amount of assistance given by the Privy Council; but there can scarcely be any doubt that the church schools have received the larger share.

It is to be noticed, however, that church schools, established under these circumstances, are evidently regarded by dissenting parents more as national than as denominational institutions, and are attended by their children for the sake of the secular instruction; their religious education being derived from the Sunday schools. As these can be established without the severe pecuniary outlay requisite for day schools, we find, as might be expected, that the number of attendants in them represents more accurately the respective numerical positions of the various churches; the Established Church throughout the country having 1,092,822 scholars in 1858, against 1,318,732 belonging to other bodies; and the numbers in Wales being about 42,576 belonging to the former, against 190,480 belonging to the latter.

II.

Turning, now, from this view of the existing provision for popular education to the question of the future supply, it will, I think, be most instructive to consider chiefly the nature and capacity of the sources from which that supply must be drawn. These, as already mentioned, are mainly three, viz.:—

1. The people themselves; both parents and children.
2. Benevolent persons, of the classes above them.
3. The public taxes.

What proportion each of these should in future contribute, will be, I imagine, the point of future controversy. I have placed them, in what I take to be the order of their responsibility; assuming—(1) That no claim for assistance, either from private or public benevolence, would arise if the persons directly interested were able themselves to provide the necessary funds, and (2) That no claim upon *public* charity would arise if the joint efforts of the other two classes were proved to be adequate. According to this view, the measure of the claim upon charity of *any* kind is the deficiency in the resources of the people themselves; and the measure of the claim upon *public* charity is the deficiency in the joint resources of the people and of private benevolence. This way of regarding the question will, at all events, serve to place such statistics as are to follow in a convenient shape for use, whatever theory of comparative

obligation may be held. It seems quite clear, however, that one of the problems demanding speedy solution will be the mode by which the contributions of the State can in future be lessened.

1. In the first place, then, we may ask,—to what extent may we expect that those for whose use the popular schools are to be provided will themselves supply the provision? If we estimate the total number of persons belonging to this class at four-fifths of the population, the number of children for whom accommodation should, according to the existing ratio, be furnished may be taken at 2,000,000. But it will, of course, be at once perceived that some of these are paupers and some criminals, for whom, there is no doubt, the State alone must provide. The number of children belonging to these classes (including out-door paupers), must be near 200,000; so that the residue would amount to 1,800,000, as to whom the question might be put to their parents, how far they are able to bear their own burden, and how far they are compelled, by poverty, to cast a portion of it upon others and upon the State.

As to a certain portion of them an answer is at once supplied by the fact that a very considerable number of the children of the labouring classes are educated in private schools, which receive no other support than the payments made by the children's relatives. The total number of scholars in private schools in 1851 was 721,396, and in 1858 it was estimated (on rather imperfect data), at 860,304. What portion of this latter number is to be found in schools for the classes under consideration is not given separately. If the estimate made in 1851 might be taken, it would be about 270,000. The Royal Commissioners, however, place the number as high as 573,436. This I believe to be considerably in excess of the reality, as it would leave an insufficient margin for the children of the upper and middle classes. A medium estimate (say 360,000) would, probably, represent more nearly the number. We shall be justified in assuming that at least the present proportion may also for the future be found in self-supporting schools; for it is a remarkable fact, that in spite of what the Royal Commissioners have described as the somewhat unfair competition of the schools assisted by Government, the relative number of private schools for the working classes has scarcely, if at all, diminished during the last ten years. I say this is a remarkable fact, for it shows how strong must be the laudable feeling in these classes against any form of dependence upon public or private bounty; and it is only made all the more remarkable by the circumstance that the instruction in these private schools is pronounced by the Royal Commissioners to be decidedly inferior to that which is given (at considerably less expense to the parents) in the assisted schools. In estimating, therefore, our resources for the future, we should not only take account of the ability and willingness

of a large portion of the people to sustain the whole cost of their education, but endeavour to see whether this source of revenue cannot be made much more productive. It will readily be admitted that if the working classes are able to get as good an education without assistance as with it, it will be better for all parties that they should do so ; since (apart from the just relief to the other classes of society) the very habit itself of independent effort is a moral training far more valuable than many lessons. I will therefore mention two ways in which, it appears to me, that the number of efficient private self-supporting schools might be increased.

(i.) By raising their general character, and enabling parents to distinguish between the efficient and the inefficient. These ends might be gained by examination of the masters and inspection of the schools. I do not go so far as to say that no one should be allowed to teach without a licence (although this would probably be more consistent with the policy of encouraging voluntary effort than the plan of subsidies) ; but if persons were permitted to present themselves voluntarily for examination, and to offer their schools voluntarily for inspection, it is probable that the feeling of confidence which the possession of a Government or university sanction would create in the minds of parents would induce many more of them than at present do so to assume the whole burden of their children's education. The statistics of the Royal Commission show, that out of 3,594 teachers of private elementary schools in the ten specimen districts (of whom 3,071 were females), only 17, or less than 1 per cent., held certificates of competency from any public body. The plan now mentioned has the sanction of these Commissioners, who suggest that the Government examination for certificates should be thrown open to all persons of good character who might present themselves. If there could be added to this a machinery for the inspection of such private schools as their proprietors might choose to submit to the ordeal, and for an examination of the scholars, the means by which parents could discriminate between good and bad schools, would be much increased. The two universities, which are now acting so beneficially in this way with regard to the middle-class schools, would only be acting out the part of really national institutions by devoting some portion of their annual income of 500,000*l.* to the encouragement of education in the class most sorely in need of it.

(ii.) Another source, entirely unproductive hitherto, from which, I venture to think, a considerable number of purely self-supporting schools might be maintained, may be found in the numerous trade societies which have now taken firm root in the country, and have spread their branches over the whole surface of the land. Whatever may be the errors and faults of such combinations, it is useless to

expect that they will cease to exist, or even that they will not continue to grow; nor will it be denied that they have their compensating advantages. It would seem, therefore, to be a wise policy to attract as much as possible of the energies of this form of co-operation to objects of undoubted utility; and assuredly no enterprise could be found more beneficial in itself, and more accordant with the main purposes which these institutions, in their character of benefit societies, are designed to fulfil, than the foundation and support of schools for the children of members. At all events, in any attempt at a statistical account of the available means of popular education, a reference should not be omitted to the possible results of an appeal to a source so legitimate as this. It is to be hoped that more complete statistics than we now possess may, ere long, be produced, showing the extent and power of these societies. A first effort has already been made in the Report of the Committee appointed by the Social Science Association; from which we learn, as an illustration of the capabilities of some of these unions, that in 1859 the Society of Amalgamated Engineers consisted of more than 17,000 members in nearly 200 branches, and had an income of 50,000*l.*, with a balance at Christmas, 1858, of 30,000*l.* Another estimate of the power and willingness of the working classes to sustain, by combined effort, whatever policy they may believe to be for the benefit of their order, may be formed from the fact that the strike of the Amalgamated Engineers, in 1852, cost the men no less than 35,459*l.*, besides the loss of wages; while that of the Preston weavers, in 1853-4, is estimated by Mr. Henry Ashworth to have cost no less than 347,000*l.*, viz., 250,000*l.* in wages to the men thrown out of work, and 97,000*l.* in contributions by workmen of other districts towards their support. Nor can we omit to notice the remarkable experiment, or rather exhibition, of the power of combined exertion amongst working men shown in various instances of successful co-operative associations. The Rochdale Society of Pioneers has now a capital of 32,000*l.*, and its business amounts to 170,000*l.* annually; the flour mills produce yearly 200,000*l.* worth of flour; and the cotton mill, opened in 1860, cost 45,000*l.* And it is a very instructive fact, as bearing upon the point under consideration, that $2\frac{1}{2}$ per cent. of the profits of one of these societies is devoted to a library and reading room for the members and their wives and families.

It is not probable, indeed, that the utmost efforts of the people, acting by themselves, will, for some time to come, obviate the necessity for very considerable aid from other classes of the community. It may, however, be reasonably expected that the proportion of their self-help to that of the help bestowed upon them will gradually increase. At present, it is found that the cost of assisted schools is

borne to the extent of 23 per cent. by the people, and 77 per cent. by other parties. It is not doubted that the former ratio may be augmented, though opinions differ as to the possible degree and rapidity of the increase. Sir J. Shuttleworth thinks, that "within a quarter of a century, at least 500,000*l.* per annum may be added to the present income from school-pence alone." Mr. Tremenhoe urges the opinion that, by the inducement of a system of prizes, accompanied by a withdrawal of the Government grant, the school-fees might be raised by at least 1*d.* per head per week,—equal to as much as 170,000*l.* per annum in the aggregate from the inspected schools. We may, perhaps, assume that the revised code owes its origin, in some degree, to the conviction that parents may be induced to pay higher fees if they see that the education given in exchange is more practically useful to their children. But, although there is a general opinion that more might be produced from this source than is at present received, it is very difficult to give any estimate of the probable addition. If Dr. Farr's suggestion, that facts as to the rate of wages throughout the country should be collected as part of the decennial census, had been adopted by the Government, we might have had the means of measuring much more accurately than is now possible, the ability of the working classes to procure for their families this common necessary of life. But the recent census was, unfortunately, restricted to a very narrow field of inquiry, and we can, therefore, only form a general opinion that there must be a great many artisans earning upwards of 30*s.* a-week, and a considerable number earning as much as 40*s.* a-week—an income equal to that of many a married clergyman or commercial clerk. We may also draw a general inference as to the resources of this class from the late Mr. Porter's well-known calculation, that 50,000,000*l.* yearly are spent by them in beer, spirits, and tobacco; though we should have to recollect that this amount is not distributed equally over the whole class. On the other hand, it is impossible to read the facts as to agricultural earnings which have been given by Mr. Purdy in a recent valuable paper without perceiving that the payment even of a penny per week for several children must be a matter of difficulty with some portion of the class. Still, on the whole, there is a concurrence of opinion in favour of the ability of the people, in the aggregate, to increase their part of the contribution; and a statistical view of our future resources would not be complete without a reference to one or two of the plans by which this result might be produced. For instance:—

(*a.*) There is the prize scheme, already mentioned, which I only allude to again for the purpose of stating that the number of Prize Scheme Associations formed in 1860, in various parts of England and Wales, was twenty-eight, and that the Royal Commissioners

express what seem to be reasonable doubts whether the influence of such schemes would be much felt by the mass of the scholars, whose parents can hardly be expected to keep them at school much longer than would otherwise be the case for the sake of the chance of their gaining a prize considerably less in value than the amount of wages they could earn by quitting school for the factory or the field. There appears to be no reason, however, why prizes and examinations should not be very useful in stimulating effort within the ordinary school-period, and inducing parents to increase their share of the expenses.

(b.) Then, there is the scheme suggested by Dr. Temple, against which the objection just referred to does not press with so much weight: that admissions to the better endowed schools should not, henceforth, be obtained by nomination of patrons, but be offered as the prizes for success in the inferior schools. The value of such prizes would be quite sufficient to tempt many parents of promising scholars to make extra exertions and sacrifices. The number of these presentations would, doubtless, be very considerable, and this way of disposing of them would not fail to diffuse a spirit of activity over all the elementary schools.

(c.) Similar in some respects to the prize schemes, and adapted to secure similar results with more certainty and fewer drawbacks, is the plan of open competition for the inferior Government appointments; that is, the bestowal of these more substantial prizes upon those who, possessing all other requisite qualifications for the work to be done, should give evidence of their superior intelligence and industry by their superior proficiency in reading, writing, spelling, and the simpler rules of arithmetic. The vacancies occurring annually in situations of this nature number at least 500; and although, of course, such prizes could not be bestowed upon school-boys, such a conspicuous example of the practical value of education could not fail both to induce parents to appreciate more highly the day school and to impel their children to preserve the knowledge obtained in the day school by attending evening schools. This subject is not altogether unnoticed by the Royal Commissioners; but they seem to have imperfectly comprehended both the main object of the plan and the description of prizes for which members of the working classes would be invited to compete. My own opinions upon the subject have, however, been so often uttered, that I should not, even if this were the proper place, repeat them here. I will only express a fear that we shall be rejecting a very powerful means of promoting education, without detriment to the Civil Service, if, adopting the advice of the Royal Commissioners, we are to discourage the people from regarding it (as it is certainly regarded by other classes of society) as a help towards success in life as well as

“a source of morality, enjoyment, and comfort.” The following figures represent a number of situations, most of which might be filled by means of competitive examination (confined to reading, writing, spelling and the first four rules of arithmetic) of persons educated in popular elementary day and evening schools, whenever there might be two or more applicants otherwise well qualified for the duties.

Out-door officers in the Customs	3,000
Letter carriers in the Post Office	3,022
Rural messengers in „ „	5,186
Messengers, porters, &c. in all departments	1,500
	<hr/>
	11,708
	<hr/>

The apprentices in the dockyards, and the boys engaged in the steam factories under the Admiralty (about 1,000 in number together) are already selected by open competition, with the best results. (See Mr. Cumin's report.) A similar measure with respect to the London letter carriers was sanctioned by the Duke of Argyll, when Postmaster-General, in July, 1860; but his Grace retired from that office before the plan was brought into action, and it was not adopted by his successor.

(*d.*) But probably the most effective method by which the contributions of the people themselves might be increased is one which has hitherto been surprisingly neglected, viz., the establishment of evening schools, or classes, or simply reading-rooms. It has been common to lament over the fact of the early withdrawal of children from school as a great hindrance to their useful instruction; and no doubt can exist that in multitudes of cases the effect has been that they have so completely forgotten what they had learnt as to render most of the expenditure incurred for them pure waste. Fewer than 20 per cent. remain at school after 11 years of age, and not more than 11 per cent. after 12. But is the regret so commonly expressed on this account altogether reasonable? Surely, there is something so natural and inevitable in this tendency to early labour, that instead of lamenting the existence of this state of things as the cause of our ill-success, we ought probably to be led to suspect that our educational machinery is ill-adapted to the circumstances of our condition. At all events, in one respect,—viz., that which we are considering, the resources of the people themselves—it is clear that a gain instead of a loss ought to be the consequence of a child's employment; since the ability to contribute would, of course, be increased by the amount of the wages received. All that would be requisite from other parties would be that they should adapt their efforts to the changed circumstances, and give in the evening the

instruction which cannot be imparted in the day time. The whole number of evening schools is no more than 2,036, containing 80,966 scholars; figures which may be said to represent something like utter destitution. There seems, however, no adequate reason why the country should not be almost covered with evening schools, without any addition to the demands upon benevolence or taxation. No elaborate system of tuition is necessary. The object being to preserve whatever results the day school teaching may have furnished, the slightest connecting link would suffice. Even mere news-rooms might be enough to keep up the power and practice of reading, which is the key to all other necessary knowledge. But more might be taught if there were a demand for more; and the present day school teachers might be available for such tuition without detriment to their other duties, if their period for day time instruction were shortened. Mr. Chadwick has at least brought sufficient evidence in support of his position that in this, as in other respects, the half is more than the whole, to entitle his facts and arguments to careful consideration. At present nearly all day schools are open at two separate periods of the day—morning and afternoon; and, indeed, the conditions upon which grants are given almost necessitate the practice in all assisted schools.

These are a few of the ways by which “the independent poor,” as they are called by the Royal Commissioners, might probably be incited to a greater amount of profitable sacrifices for their children and themselves. There are, doubtless, other influences equally powerful which might be employed to the same end. On the other hand, there are some that would act in a contrary direction; and it may be worth consideration whether the scheme, favoured by the Royal Commissioners, of extending the State’s assistance to *all* scholars in unassisted schools (both public and private) would not have this effect, by reducing the school-fees from 4*d.*, 6*d.*, or 8*d.* a-week, which is now paid in many private schools, to little more than 2*d.* a-week, which seems to be about the average in inspected schools. A similar effect, though less in degree, might be the result with regard to unassisted public schools when thus brought under the uniform system, since some of them at present extract more in the shape of school fees than do the inspected schools.

2. Passing now to an estimate of the aid which, notwithstanding the utmost efforts of the people themselves, must for some time, be rendered by other portions of the community, and of the amount which the resources of private benevolence may be expected to yield—we must by no means lose sight of the important assistance which ought to be rendered by the benevolence of former times, existing now in the shape of endowments. The aggregate value of educa-

tional charities has not yet been accurately ascertained; but the estimate of the Charitable Trusts Commission reaches to 375,000*l.* per annum. There can be no doubt that the original object of nearly all these endowments was the education of the poorer classes, and that in very many cases the funds are now misapplied for the benefit of a higher class who could well afford to pay for its instruction. A good deal, also, is lost by wasteful administration, and some is diverted altogether from its proper object. In two ways, therefore, this fund might be made more productive than at present, viz., (1) By securing the whole amount for strictly educational purposes; and (2) By restoring to their proper objects those charities which, though applied to promote education, have been misappropriated to a wrong class of the community. But besides what has been left specifically for education, there is also a further amount of upwards of 200,000*l.* per annum left generally "for the poor;"* a considerable part of which might, as the Royal Commissioners recommend, be most usefully employed, without undue violence to the founders' intentions, in extending to this class the advantages of a better education.

It must be obvious that, even as far as we have gone in this investigation, the result has been to show that a very large revenue is producible from the sources already mentioned, viz., (1) From the people alone, devoted to private schools; (2) From the same source, but raised by co-operation and applied to public schools connected with the various trades; (3) From the same source, in the form of increased payments for the instruction given in other public day schools and in evening schools; and (4) From private benevolence, in the shape of endowments. But there still remains, before we can state the amount which may be needed from Government, the productive mine of the private benevolence of the current generation. The present annual amount contributed from this source (apart from the amount raised for the erection, &c., of new buildings) must certainly exceed 800,000*l.*, and is, probably, considerably in excess of this sum. Some of this, but more especially of the sum expended in the building of school premises, has doubtless been the result of the stimulus applied by the Government grants. It is not, however, quite correct to say, as Sir James Shuttleworth does, that the whole amount "has been called forth" by these grants. The amount thus called forth is neither more nor less than the amount which would not otherwise have been forthcoming; and this can only be matter of conjecture. In many cases the grant may have tempted persons to subscribe who would else have refrained; but there can be no doubt that in other cases it has been welcomed as a relief from a burden which would otherwise have been borne by the landowner

* See Mr. Cumin's "Report to the Education Commissioners."

or the locality. It is noticeable with regard to the expense of training colleges, that the income from subscriptions has steadily declined in proportion as that from the Government grant has increased, the ratio being*—

	Government Grants.	Students' Payments.	Subscriptions.
1854	36·5	18·6	44·9
'56	46·7	11·5	41·8
'57	55·2	8·1	36·7
'58	64·3	5·0	30·7

And we now learn, that at present the Government is paying no less than 90 per cent. of the entire cost of these institutions.†

There may be reasons for this which do not apply to elementary schools, but I venture to think that, as there are countervailing inducements, both in the existence and in the absence of the Government grants, we may safely calculate on the present amount of subscriptions being maintained whatever policy the Government may think proper to adopt.

3. Lastly, to provide for whatever deficiency may exist after the exhaustion of the means already mentioned, there is the resource of public taxation. The value of this resource it would of course be useless to pretend to estimate, as it is practically boundless, or only limitable by the willingness of the taxpayers. Some measure of that willingness may perhaps be inferred from the amount already raised, viz., 6,200,000*l.* since 1839; the current annual amount having now reached 800,000*l.* On the other hand, however, the very existence of the revised code is probably an indication of some uneasiness under this yearly burden; and it would be rash to assume that the Government grants could be so swollen as to flow into all the popular day schools which at present do without them. The total expenditure which such an extension would require from the State, has been variously computed at 750,000*l.* a-year, which Sir J. K. Shuttleworth thinks would, in a few years, be sufficient; at 2,100,000*l.*, which is the Royal Commissioners' estimate; between 3,000,000*l.* and 4,000,000*l.*, which was the calculation of Mr. Disraeli when Chancellor of the Exchequer in 1858; and at 5,000,000*l.* a-year which Dr. Temple considers would be ultimately reached.‡ If we

* See Mr. Cowie's "Report" for 1858, quoted by Mr. Tremenheere.

† Speech of Mr. Lowe, M.P., 13th February, 1862.

‡ Sir J. Shuttleworth proposes to reduce year by year the Parliamentary grant till it reaches three-fourths of its present ratio to the whole amount raised; the effect being that 750,000*l.* would, at the end of fifteen years, be adequate for the

take 30s. as the average yearly cost of each child's yearly education under the Privy Council system, the addition of about 1,000,000 children who are now instructed in schools (both public and private) which do not receive aid from Government, would cause an addition of about 1,500,000*l.* to the present grant, supposing that the existing conditions on which such aid is afforded, could be maintained and complied with. As, however, most of the unassisted public schools are in poor localities, and are on that account, or from other circumstances unable to satisfy these conditions, it seems to follow that, if they are to be elevated by Government assistance to the level of the inspected schools, the proportion of that assistance must be greater than is now afforded to schools more favourably situated and more liberally supported. For some years, too, there would be the extra expense of new school buildings ; and there would also, of course, be a constant addition to the cost of inspection and administration. Supposing the revised code to be in force, its first effect would doubtless be to lessen the proportion of the State's contribution ; but whether it would cause any permanent reduction, is a question which could only be determined by experience. On the other hand, such a complete extinction of private schools as is thus contemplated is hardly to be expected, whatever might be the severity of the competition to which the Government assistance to their rivals would expose them. A certain, and not inconsiderable, number of the working classes will always retain that independent spirit which impels them to decline whatever is offered in the shape of charity.

As I have already said, there have lately been indications that the prospect of so large a demand upon the national revenue, would be viewed with some apprehension ; and even that a diminution of the present proportions of the Parliamentary grant would not be unwelcome if it could be effected without detriment to its main object. My chief design, therefore, in presenting the preceding figures to the Society, has been to supply the most important facts and estimates which may enable impartial observers to judge how far any increased demands may be necessary, or how far existing demands may be reduced. It is not, I assume, a matter of controversy, but a principle generally admitted, that the aid given by one part of the community towards the education of the other part, is not given because the relation of charity and dependence thus

support of the system extended to all the schools in the country. In the interim, he thinks that the grant might reach 1,000,000*l.* or 1,200,000*l.*, but not exceed the latter sum. Dr. Temple, on the other hand, founds his estimate on the supposition that the conditions of Government aid would be gradually and greatly relaxed, and that the funds now raised from other sources, would (as in the case of the Training Colleges) diminish as the Government aid increased.

produced is in itself desirable, but because it is supposed that the great blessing of education would not otherwise, or not so speedily, or not so effectually, be obtained. It must, therefore, be of the utmost consequence in reviewing (as I take it they must be reviewed) our whole position and policy, to form some tolerably correct notion of the resources which exist in the people themselves, and in other quarters independently of the State. In presenting the preceding facts upon this point, I make no pretence of giving any novel information; the greater part of the figures has been obtained from the recent "Report of the Education Commission;" the Statistical Appendix to which Report is an extremely valuable summary of the latest details. My only object has been to give prominence to facts which though known to some, may to many be unknown or unfamiliar, at a time when they are likely to be specially important; and it now only remains for me to hope that this attempt to assist the ensuing discussions may not be altogether unserviceable for that purpose.

APPENDIX.

Parliamentary Grants, 1839-61.

	£		£
1839	30,000	1851	150,000
'40	30,000	'52	160,000
'41	40,000	'53	260,000
'42	40,000	'54	263,000
'43	50,000	'55	396,921
'44	40,000	'56	451,213
1845	75,000	1857	541,233
'46	100,000	'58	663,435
'47	100,000	'59	836,920
'48	125,000	'60	798,167
'49	125,000	'61	803,794
'50	125,000		
			<u>£6,204,683</u>

Income of Educational Societies.

The amount expended in the year 1859 by the eight principal Central Societies for Promoting Popular Education, was 49,741*l*. The sums raised by these societies since their foundation, must have reached at least 1,500,000*l*. There are, besides, various local societies and boards, the income of which is not readily ascertainable. In 1857, twenty-three diocesan boards received between 13,000*l*. and 14,000*l*.

Proportion of Income from School Fees.

	In the £.
	s. d.
In Church of England schools, assisted	5 10
" " unassisted	4 9
In British schools	8 1
" " unassisted	9 11
In denominational schools	9 3
" " unassisted	12 2

MISCELLANEA.

CONTENTS:

	PAGE		PAGE
I.—Census of France in 1861....	72	V.—Wills and Administrations	78
II.—Land Legislation in New South Wales, 1861	74	VI.—The French Budget for 1863	79
III.—Labour and Wages in Victoria, 1861	75	VII.—The New Gold Region of British Columbia.....	80
IV.—Social Condition of Germany in the Seventeenth and Eighteenth Centuries	77	VIII.—Telegraphic Progress, 1850-61, and Present Prospects.....	82

I.—*Census of France in 1861.*

M. MAURICE BLOCK, who is one of the Foreign Honorary Members of the Statistical Society, and Sous-Chef du Bureau de la Statistique Générale de France, has contributed to the Parisian Newspaper *Le Temps*, of the 14th and 21st January, 1862, two very interesting and able articles on the *Census of France in 1861*. As M. Block has favoured the Society by forwarding copies of these articles, we proceed to give a brief outline of their principal contents.

In his first article, M. Block examines the movement of the population in the period between the censuses of 1856 and 1861; compares it with former periods; and contrasts the several departments with one another. He states the population in 1861 at 37,382,225 persons. At the census of 1856 it was 36,039,364 persons; the increase in the quinquennium was, therefore, 1,342,861. But this increase was composed of two very different elements. 1. The annexation of territories (Nice and Savoy), containing 669,059 inhabitants. 2. The actual excess of births over deaths, and of immigration over emigration. If we deduct the increase by annexation, the actual movement of the population represents an increase of 673,802 in the quinquennium, or 134,760 persons *annually*. Comparing these results with former periods, we find the annual increase at the eight last censuses to have been :—

From 1826-31	142,037 per ann.	From 1846-51	76,537 per ann.
„ '31-36	194,337 „	„ '51-56	51,238 „
„ '36-41	135,362 „	„ '56-61	134,760 „
„ '41-46	254,062 „		

Thus, during the last thirty-five years, the rate of increase has been both above and below that of the period 1856-61. The increase from 1821 to 1861 was at the rate of 100,000 per annum. The higher rate of increase during the last quinquennium over the two preceding periods, M. Block attributes to the disappearance of the terrible epidemic (cholera) which raged before 1856. But much is also due to the greater prosperity of the people, the abundance of supplies and of employment. The general rise in prices, M. Block considers, only affects persons with fixed incomes, such as clerks, *rentiers*, and other analogous classes. The increase in the population, however, was not uniform over the whole of France. In 1856, 54 departments, out of 86, showed a *decrease* of population; in 1861, 29 had decreased;

and 23 departments showed a *decrease* at *both* periods. There were also 23 departments in which the *progress* of the population had been steady and constant. With regard to the character of the Departments which had decreased, it was found, that they were either purely agricultural, unfertile, or contained only a few scattered towns. On the other hand, the departments which had increased, were the manufacturing and industrial departments, and those containing the large towns and cities of France. The population, therefore, shows a decided disposition to *migrate from the country into the towns*. M. Block sees nothing to regret in this displacement of the population; it is a movement which is general over Europe; it proceeds from causes inherent in human nature, and when these causes have ceased to operate, as they ultimately must do, a reaction will ensue. On the whole, M. Block considers the results of the census of 1861 to have been satisfactory. They show a progress which he thinks is likely to continue.

In his second article, M. Block proceeds to compare the progress of population in France with that of the other four Great Powers of Europe, and remarks that the rate of progress in France has been *less* than in either of those countries. In Great Britain, the increase of population in the last forty years was 45 per cent., notwithstanding an immense emigration, and a decrease in Ireland. In Russia, the population has *doubled* itself in fifty years, while that of England has increased 119 per cent., and Scotland 90 per cent., in a like period. Prussia, between 1816 and 1858, increased 72 per cent.; Austria, between 1818 and 1857, 27 per cent. In France, the increase in thirty-five years (1826-61) was only 12 per cent. The increase in each of these countries in 100,000 persons, per annum, was as follows:—

England	1,625	United Kingdom	1,125
Prussia	1,440	Austria	692
Russia	1,410	France.....	340

M. Block then proceeds to investigate the causes of this low rate of increase in the population of France, by examining into the births, deaths, and marriages of each country. The *Births* in France, from 1855 to 1859, were 987,969 per annum, or 27·5 births to 1,000 of the population. In the four other countries investigated, the birth-rate was as follows:—

England	34 per 1,000	Prussia	38 per 1,000
Austria	36 ,,	Russia	40 ,,

The Marriage-rate is about the same in Great Britain, Prussia, Austria, and France; in Russia it is a little higher. With regard to the fecundity of marriages, it is found, that to 100 children there are 210 marriages in Prussia, 223 in Russia and Austria, 237 in Great Britain, and 285 in France. As regards *Deaths*, France has a slight advantage over Russia, Austria, and Prussia. The following is the death-rate in each of the five Powers:—

Russia	33 per 1,000	Prussia	29 per 1,000
Austria	32 ,,	France.....	28 ,,
And Great Britain		22 per 1,000.	

The true increase of a population, however, is the excess of births over deaths, and in this respect France does not appear to advantage. The excess is, in France, three times less than in Austria; five times less than in Russia; six times less than in Prussia; and eight times less than in Great Britain. It results from these facts, that the small increase in the population of France is attributable to its low birth-rate. In his concluding paragraphs, M. Block glances at some of the causes of this low birth-rate. He considers it to be due less to physical than to moral causes. It may be true that the Gallic race is less fertile than other races; but the conscription, the late age at which Frenchmen generally marry, and the limit which

they put to the number of children they desire to have, are causes which have much influence in retarding the progress of the population of France.—F. W. H., *Assist. Sec., S. S.*

II.—*Land Legislation in New South Wales, 1861.*

THE *Sydney Empire*, of October, 1861, publishes the following summary :—

“The Land Bills, so long the object of contention and dispute, having passed into law, we shall briefly point out the principal advantages and improvements conferred on the Colony by their means.

“The three leading principles of the Robertson land scheme, are, 1st. selection before survey at a low fixed price; 2nd, deferred payments, and 3rd, the right of leasing a given area of adjacent pasture ground.

“The thirteenth clause commonly called ‘the free selection clause’ of the Crown Lands Alienation Act, provides that with the exception of certain descriptions of lands therein specified, all Crown lands ‘shall be open for conditional sale by selection in the following manner, namely: Any person may upon any Land Office day, tender to the district Land Agent a written application for the conditional purchase of any such lands, not less than 40 acres, nor more than 320 acres, at the price of 20s. per acre, and may pay to such Land Agent a deposit, of 25 per cent. of the purchase money. And if no other application be made at the same time for the same land, such person shall be declared the conditional purchaser at the aforesaid price.

“And if other applications be made and not immediately withdrawn, the ultimate purchaser shall be determined by lot.

“The Crown lands excepted from conditional sale are thus enumerated and defined. ‘Crown lands other than town or suburban lands, and not being within a proclaimed gold field, nor under lease for mining purposes to any other person than the applicant; and not being within areas bounded by lines bearing North, South, East, West, and distant ten miles from the boundary of a town containing according to the last census 10,000 inhabitants, or five miles from a town of 5,000 inhabitants or three miles from a town of 1,000 inhabitants, or two miles from a town or village of 100 inhabitants, and not reserved for the site of a town or village, or for the supply of water, or for any other public purpose, and not excepted from sale under section 7.’

“Under section 7, is included all Crown lands held under lease issued previously to the 22nd February, 1858, that is to say, nearly all the proximate and eligibly situated lands held under pastoral leases in the unsettled districts, comprising upwards of 40 millions of acres.

“These lands are, however, only exempted from sale during the currency of the existing leases, the greater number of which will expire on the 1st January 1865.

“Another considerable reservation consists in lands which have been set apart for towns and villages, which comprise about two millions of acres; but according to a statement made by the Colonial Secretary, Mr. Cowper, during the discussion of this clause in the Assembly, nearly the whole of these lands will be open to free selection.

“By the 19th clause, Crown lands may be conditionally selected for the purposes of *mining, other than gold mining*, in the same manner as under the 13th section except that the price shall be 40s. per acre, and a declaration shall be required that not less than an average sum of 2l. per acre has been expended on the land in mining operations other than gold mining.

“The privilege of *reducing* the quantity of land originally selected, to any smaller portion, being not less than 40 acres, is also conferred upon the purchaser,

on his making a declaration showing an expenditure of not less 5*l.* per acre on the land to be granted, in which case the purchase of the remainder shall be rescinded and the deposit paid upon it applied towards satisfying the balance of the purchase money of the smaller quantity.

“Such are the chief conditions relative to the selection and taking possession of lands *conditionally purchased*.

“We now come to the principle of deferred payments. On the payment of 25 per cent of the purchase money, or 5*s.* per acre for agricultural and grazing land, and 10*s.* per acre for mineral land, three years’ credit is given for the balance of the purchase money. At the end of that period the purchaser or his alienee, upon a certain declaration and certificate, and paying the residue of the price, may demand and obtain a grant of the fee simple, with a reservation in the first case of any minerals which the land may contain. But he has the option instead of paying the balance of the purchase money, to defer the payment thereof from year to year by paying interest thereon at the rate of 5 per cent. per annum in the course of the first quarter of each succeeding year.

“The next benefit conferred upon the conditional purchaser is the pre-emptive right of *leasing* a quantity of *adjacent* pasture ground equal to three times the extent of the purchased land. This privilege of pre-emptive leasehold was heretofore confined to proprietors in fee simple, holding 640 acres or more in one block. It is now common to both large and small landholders.

“Owing to this arrangement it will henceforward be in the power of persons of moderate fortune to enter upon undertakings to which many circumstances in the present condition of the colony invite them, by which grazing and agricultural operations will be combined and made subservient to the progress and success of each other. The colony abounds with suitable situations for experiments of such a character.

“Every kind of industry connected with land and cattle, may find in this colony an eligible opportunity for exercise and employment, were our present population and means increased a hundred fold.

“In the different classes of lands dealt with by the various provisions of the Act we have been explaining, the experienced grazier and the skilled agriculturalist may each find an abundance of profitable openings. The horticulturist may secure advantageous situations in the vicinity of the inland towns and gold fields, and the cottager or the digger, bent upon blending his other avocations with tillage, may everywhere obtain a freehold home.”

III.—*Labour and Wages in Victoria, 1861.*

WE obtain the following from the *Geelong Advertiser*, of December, 1861 :—

“It may be interesting to those who live in the chief towns of Great Britain and Ireland, to compare the *Rate of Wages* and *Cost of Living* there with that of Victoria. At the present time an ordinary labourer earns here about 2*l.* 8*s.* per week; carpenters, 3*l.*; wheelwrights and blacksmiths, 2*l.* 14*s.*; curriers, 4*l.* to 5*l.* per week. As a clue to the flourishing state of the various savings’ banks throughout the colony, we may add that men in receipt of wages can procure neat three and four-roomed cottages from 4*s.* to 6*s.* per week, while provisions of the best quality are procurable at the following rates:—flour, 1½*d.* per lb.; prime beef and mutton, 2*d.* and 3*d.*; potatoes, 1*d.* per lb.; tea, 2*s.* 6*d.* per lb.; sugar, 5*d.*; fresh butter, 8*d.* to 10*d.*; milk, 6*d.* per quart; eggs, 1*s.* per dozen, and other articles in proportion. The position of the country labourer is quite as good. A ploughman gets his 25*s.* per week, with lodgings and rations; a farm labourer, 18*s.* to 20*s.*,

with lodgings and rations, while the wages in town and country, of general house servants (female), has suffered no material reduction from the rates of what is commonly called 'the dear times,'—the wages of general house servants ranging as high at the present time as 25*l.* to 30*l.* per annum.

"These facts and figures sufficiently prove that the position of the working man in Victoria is vastly superior to that of his prototype in the old world; and under the new assisted immigration scheme which has been found to work so well on a comparatively small scale, that its results on a large scale promise comparatively great results, we look forward with confidence to a large and important addition ere long to our already prosperous and thrifty population."

We take the following article from the *Melbourne Argus* of November, 1861:—

"At the present moment, the cost of living in this colony is lower probably than in any part of the civilized world. Rents, the wages of domestic servants, and the better descriptions of wearing apparel, are more expensive here than in many parts of Europe, but these are items of expenditure which do not press upon the labouring classes in Victoria, whose position is superior to that of the same classes in Canada and the United States, and immeasurably superior to that of the operatives in the mother country.

"The Registrar-General's estimate of the weekly expenditure of the family of an artizan, consisting of a man, his wife, and three children, in 1854, 1857, and 1861, respectively is as follows:—

	£	s.	d.		£	s.	d.		£	s.	d.
1854	7	—	3½	1857	3	13	4½	1861	2	7	4

"But 7*s.* may be deducted from the latter estimate on account of the reduction which has taken place in the price of bread, meat, butter, flour, and other articles, since the calculation was made, and if the artizan occupies his own cottage a further deduction of 6*s.* must be made upon the items of rent and vegetables, bringing the cost of living down to 34*s.* weekly.

"But while this is less than one-fourth of what it was in 1854, we do not find anything like a corresponding reduction in the rates of labour, as given by the same authority, these having been, for the periods compared as follows:—

	1854.	1861.
	£ s. d.	£ s. d.
Farm labourers, <i>with rations, per week</i>	1 15 —	— 15 —
Ploughmen " " 	2 — —	1 — —
Reapers, <i>per acre</i>	1 5 —	— 15 —
Mowers, " 	— 15 —	— 6 —
Shepherds, <i>with rations, per annum</i>	48 — —	33 — —
Stock-keepers " " 	65 — —	40 — —
Hut-keepers " " 	35 — —	25 — —
Masons, <i>per day</i>	1 12 —	— 14 —
Plasterers " 	1 10 —	— 12 —
Bricklayers " 	1 8 —	— 12 —
Carpenters " 	1 8 —	— 11 —
Blacksmiths " 	1 10 —	— 10 —

"Thus it will be seen that while the cost of living is just *one-fourth* of what it was seven years ago, wages have in no instance experienced a commensurate

decline, and are far from having touched that point at which they may be said to have reached their natural level, as determined by the value of commodities generally. Nor until this has been gained, can we expect to witness a resumption of that industrial activity which will afford abundant employment and diffuse general prosperity."

The export of Gold from Australia in 1861, is estimated at 7,200,000*l.*; in 1860 it was 8,600,000*l.*; and in 1856 it was 12,200,000. The production, therefore, seems to be decreasing rapidly.

IV.—*Social Condition of Germany in the Seventeenth and Eighteenth Centuries.*

THE *Saturday Review*, of 18th January, 1862, gives the following account of a recent work by M. Freytag.

"Gustav Freytag has produced another series of his interesting Pictures from German History, *Neue Bilder aus dem leben des deutschen Volks*. Herausgegeben von Gustav Freytag, Leipzig: Hirzel, London: Williams and Norgate, 1862.

"The period which he selects for illustration is the century and three-quarters succeeding to the thirty years war. They are drawn upon the same plan, and aim at conveying the same kind of knowledge, as Lord Macaulay's celebrated third chapter. All the minute features which bring home to the reader's mind the true life of the people, and which formal writers of history habitually pass by, are delineated in detail; and liveliness is added to the descriptions sometimes by telling anecdotes, sometimes by large extracts from autobiographies or memoirs of the period under discussion. The pictures are severe, for M. Freytag cannot lay aside his habitually satirical manner; but they are not less amusing or instructive on that account. Several of them will be valuable as reviving the memory of facts which there is a tacit agreement to forget in our days. The author's account, for instance, of the condition of the peasantry down to the very beginning of the Revolutionary War, is worth perusing just now when the subject of slavery occupies so large a share of public attention. Few people will be prepared for the fact that in 1750, more than half the German nation were serfs or that it was a serfdom compared to which the slavery of the Carolinas is lenient. The one great advantage of the German serfs over the western slaves was that they could not be sold, otherwise they were in a far worse condition. They were bound to the soil, held to involuntary labour for at least half their time, and often for a great deal more; and they had to bear themselves the burden of their own support. The owner was under no obligation to feed them. To do this they employed whatever residue of their time the lord did not require. But even this scanty residue must be devoted in the first instance, to producing what should pay the tenths, heriots, reliefs, and numerous other feudal dues which the lord has a right to exact. The consequence was that they combined destitution more abject than that of the poorest Dorsetshire labourer with servitude scarcely milder than that of an American slave. And to make their miseries complete, the lord was also their judge in all civil and criminal causes, and used to enforce his decisions by the infliction of flogging, apparently unlimited by any effective law. M. Freytag notices it as a startling juxtaposition of culture and barbarism, that in the year 1790, just at the time that Goethe's Torquato Tasso was beginning to attract notice among the aristocracy of the court of Dresden, the peasants of Miessen revolted against their feudal lords, because these had so increased their days of servitude and encroached upon their scanty residue of time that they rarely obtained a single day to work for their own sustenance. On the other hand, M. Freytag's picture of the condition of the degraded and pauperized feudal nobility

may be read with profit in Prussia just at the present crisis. It leaves far in the shade the accounts that have come down to us of the state of the landed proprietors in Ireland about the same period. In illustration of it, M. Freytag quotes largely from a very amusing narrative written by a lawyer, who lived shortly after the peace of Westphalia, of the lamentable adventures of a citizen who tried to become a country gentleman, and of the plucking he experienced at the hands of the beggared slips of nobility, who under the popular designation of *Krippenseitei*, wandered over the country to pick up a living as best they could."

V.—*Wills and Administrations.*

"A CALENDAR of the *Wills and Administrations* of the year 1858 (at least from the 10th of January) has been published, and the Registrar-General has made some interesting calculations founded upon it, making an estimate for the omitted ten days, so as to complete the year.

"210,972 adults died in the twelvemonths, and 30,823 persons left personal property behind them; 21,653 had made their wills; the other 9,170 had made none, and letters of administration had been taken out. 89 persons with more than 10,000*l.* (one worth above 100,000*l.*) died without making a will.

"The aggregate amount of property left by all these persons is estimated at 71,860,792*l.*, averaging 2,331*l.* each. Distinguishing between the men and the women, we find that 102,049 adult men died in the year, and 21,454 left personal property—for one who left any, four leaving none; 108,923 adult women died, and 9,369 left personal property. The average amount left by the men was 2,715*l.*; by the women, 1,371*l.*

"Omitting now any estimate for the first ten days of the year, and dealing only with the actual wills and administrations of the rest of the twelvemonth, the personal property of those who died leaving any, 29,879 in number, amounted to 69,893,380*l.*, of which 57,396,350*l.* was left by men, and 12,497,030*l.* by women. The stream of wealth flowed thus:—

Persons.	Dying Worth.	Left.	Average.
		£	£
22,513	Less than 1,000 <i>l.</i>	5,762,880	256
6,277	1,000 <i>l.</i> , less than 10,000 <i>l.</i>	20,010,500	3,188
1,020	10,000 <i>l.</i> , „ 50,000 <i>l.</i>	21,960,000	21,529
102	50,000 <i>l.</i> , „ 100,000 <i>l.</i>	7,100,000	69,600
67	Above 100,000 <i>l.</i>	15,060,000	224,776
29,979		69,893,380	2,331

"Only one property was sworn so high as 900,000*l.* and under 1,000,000*l.* 1,935 were under 20*l.* The property divides nearly equal at 20,000*l.* About 35,000,000*l.* belonged to 19,392 persons, none having more than 20,000*l.*, and the other 35,000,000*l.* belonged to 587 persons, fifty times fewer than the former company.

"Of those who left about 100,000*l.*, thirty-seven were described as esquires, a term which would include men who had made their fortunes by trade or commerce; ten were titled personages, five were bankers, four merchants, three clergymen, one cotton manufacturer, one corn merchant, one hotel keeper, one in the navy, one in the Indian army, one in the Indian Civil Service, one was a spinster.

Three medical men left more than 50,000*l.* A person described when he made his will, as a commercial clerk, left above 30,000*l.*; seventeen ‘labourers and mechanics’ above 1,000*l.* Of seventy-five lawyers, fifteen died without making their wills. The foregoing statements, which must be taken as approximations, rather than an absolute accuracy, relate to England alone.

“ In the year ending March 31st, 1859, *legacy duty* was paid in the United Kingdom on 65,441,611*l.*, but that does not include property passing from husband to wife, or the reverse, no legacy duty being then payable; *succession duty on real property* was paid upon 29,242,630*l.*, and estimating that to be taxed to the next successor at half its saleable value, it will amount to 58,485,260*l.* On this assumption, 113,936,871*l.* passed by death to another generation of successors.

“ It is certainly a remarkable fact that (upon an average) on every death, including alike men, women, and children, more than 100*l.* of property paying legacy duty, and perhaps 187*l.* of property of every kind, is left for the benefit of successors in the United Kingdom.”

VI.—The French Budget for 1863.

M. FOULD’S Report to the Emperor on the Finances of France, was published in the *Moniteur*, of the 22nd January, 1862. We compile the following abstract of its principal provisions from the Paris correspondence of the *Economist*.

“ M. Fould does not propose to have recourse to the expedient of a new loan. He recommends instead the conversion of the 4½ per cent. stock into 3 per cent., which would place a considerable sum in the hands of the Treasury available for the reduction of the floating debt. At present these two funds restrict the buoyancy of the public funds, by acting in rivalry to one another; but on the 14th March, 1862, the State will recover the right of offering to its creditors the alternative of conversion or reimbursement. M. Fould proposes to anticipate this right by allowing the holders of 4½ per cent. stock the privilege of conversion into 3 per cent., but without any loss of revenue to the stockholder. In return for this advantage, the stockholder would have to compensate the Treasury. If the process of conversion took place at the present price of the two funds, the balance to be paid would be about 32*l.* for 18*l.* of *rente*. M. Fould proposes to concede more favourable terms than these, and to allow the further advantage of quarterly instead of half-yearly payments, of interest. It is estimated that this operation might produce about 12,000,000*l.* if favourably received by the stockholders. This sum would be entirely devoted to the reduction of the floating debt.

“ M. Fould divided the budget into two parts—ordinary and extraordinary; the former comprising all permanent expenses, the latter ‘those which have a character of public utility, but are not absolutely obligatory.’ Under the head of ordinary expenses, the Minister proposes to raise the following new taxes, viz.:—

	£
1. A tax on horses and carriages, to produce	220,000
2. An augmentation of the registration duties, estimated to produce	400,000
3. Greater precautions are to be taken for securing the receipt of the } old duties, and this is estimated to realize an additional	400,000
4. An increase of the stamp duties	380,000
5. A tax of 10 centimes on bills and receipts	500,000
6. A new tax on brokers’ accounts, on transactions over 120 <i>l.</i> , to produce	48,000
Forming a total increase in the Ordinary Budget of	1,948,000

"M. Fould also proposes to double the tax upon *salt*, by which means he expects to realize 1,320,000*l.*, and to increase the duty on sugar, which he calculates to produce 1,160,000*l.* From the first of these taxes all salt used in industrial establishments as raw material is to be exempted; and the tax on sugar is intended only as a temporary measure, to raise the means of continuing the public works now in progress. These two taxes together represent a total of 2,480,000*l.*, being the increase in the extraordinary division of the budget; or in other words, in the *temporary expenses* of the empire.

"In return for these new imposts, the Minister promises to reduce the army to 400,000 men by the 1st January, 1863, and to fix the budget of the Marine Department, ordinary and extraordinary, at 6,720,000*l.* He also undertakes to remit the personal and furniture tax in the case of workmen existing by their own labour or that of their families, and to exempt from the trading licence all workmen working alone. It is estimated that these two exemptions will benefit altogether 1,300,000 persons, and cause a money loss to the Treasury of 200,000*l.* The reduction of duty on money and valuables transmitted by post, which is also promised, will not, it is believed, cause any diminution of revenue.

"In the course of his report, M. Fould states that the floating debt now amounts to 40,032,000*l.*, including a sum of 1,360,000*l.*, the amount of loss on the sale of the Italian stock paid to France by the Italian Government, as an indemnity for the war in Italy. From this sum, however, must be deducted the amount of caution money deposited by Government employés, which would reduce the debt to 38,520,000*l.* M. Fould adds that compared with the resources of France, this sum ought not to occasion any alarm, but thinks it advisable to reduce it as much as possible by the increased taxation proposed, and by the conversion of the $4\frac{1}{2}$ per cents. By these measures the Minister also hopes to secure a surplus for 1863, and to balance the unforeseen expenses of 1862 by the 400,000*l.* indemnity due from China, and a sum of 1,000,000*l.* about to be paid by Spain.

"The report does not contain any precise statement of the total amount proposed to be raised. Taking, however, the figures for 1862 at 79,000,000*l.* (including the local taxation, or *dépenses pour ordre*), and adding the extra taxes proposed by M. Fould, this would give a total of 'ordinary' revenue for 1863, of 82,000,000*l.* By including the extraordinary budget, the amount would be raised to 87,000,000*l.*"

VII.—*The New Gold Region of British Columbia.*

THE following particulars are condensed from two elaborate letters in the *Times* (5th and 6th February, 1862), from their correspondent, writing from Victoria, Vancouver's Island, 29th November, 1861:—

"The portion of British Columbia which has yielded by far the largest amount of gold in 1861, is a newly-discovered district, called 'Cariboo.' This district is about 500 miles in the interior, north-east from the coast of British Columbia. It is not far from the source of the south branch of the Fraser river, and it consists of a broken and rugged mountainous region; it is about 50 miles from north to south, and 30 miles from east to west. Cariboo was discovered during the autumn of 1860, but its riches were not developed till the summer of 1861.

"The yield of gold is very large—the earnings fluctuating between 10*l.* and 40*l.* per day, per hand; in some cases these large earnings were even exceeded, and very surprising stories are told by those who were fortunate enough to get a 'good haul.'

"The gold was all coarse, granulated, and gravelly, mixed with pellets of pure

metal of considerable size. Labouring men, who had no mining claims of their own, were hired to work those of others at 1*l.* 15*s.* and 2*l.* per day. Provisions were relatively high in price,—flour was 1*s.* 7*d.* per pound, bacon 3*s.*, beans 1*s.* 8*d.*, tea 6*s.*, sugar and coffee 3*s.* Single meals at a ‘restaurant,’ consisting of beans and bacon, and a cup of bad coffee, cost 8*s.* 4*d.*

“ A correspondent of one of the newspapers in Victoria, writing from Cariboo at this time, quotes the prices of what he calls ‘miners’ luxuries,’ as follows:—a tin pan (worth 3*d.*) sold for 1*l.* 12*s.*, picks and shovels were 24*s.* each, shovels with handles 30*s.*, washing was charged at 1*l.* 4*s.* per dozen pieces. At such prices a man should earn his 5*l.* to 20*l.* per day to enable him to keep ‘business lively.’ These wages and prices show the large gains of the miners. It is impossible to give a return of the ‘yield’ of gold in British Columbia with certainty. I shall merely attempt an approximation to the gross yield, from the best data within my reach.

“ It is generally conceded that, including Chinese, there were 5,000 men engaged in gold mining in the summer of 1861. To work out the earnings of this aggregate of 5,000 miners, I adopt a statement of names and amounts taken from information obtained from miners. The general opinion of the miners is, that in addition to the ‘lucky ones,’ who made together nearly 187,000*l.*, and who amounted to eighty in number, every man who had a claim or a share in one made from 200*l.* to 400*l.* Of these there were at least 400 ; and taking their earnings at an average of 300*l.* per man, they produce 120,000*l.* There now remains 1,020 men to be accounted for. Putting their earnings at 28*s.* a-day each, which was the lowest rate of wages paid at the Cariboo mines, and assigning only 107 working days to the mining season, this produces nearly 153,000*l.* These several sums added together make the yield of Cariboo, and the surrounding neighbourhood, to be 460,000*l.* to 1,500 men for the season ; by far the greater portion being from Cariboo.

“ The remaining 3,500 miners, who worked on Thompson’s river, the Fraser, Bridge river, Similkameen, Rock creek, and in other places throughout the country, can be divided into two classes ; the first to consist of 1,500 miners, who made 2*l.* a-day for about 180 days, which gives 540,000*l.* for their joint earnings. The second class of 2,000 men, who were not so fortunate, and who only made 1*l.* a-day for the same period, making 360,000*l.* for their aggregate earnings during the season. The three last categories, which number 4,520 men, include the many miners who in Cariboo were making from 4*l.* to 10*l.* per day each, as well as those who, in other localities, were making from 3*l.* to 20*l.* a-day occasionally, so that the estimate, although not accurate, is reasonable and moderate.

“ The following is the statement in the form of a table, converting dollars at 5 $\text{\text{S}}$ = $\text{\text{£}}$.

	£
80 miners took out an aggregate of	187,000
400 ,, claim owners, took out	120,000
1,020 ,, at 28 <i>s.</i> a-day, for 107 days.....	153,000
	<hr/>
Total yield (nearly all from Cariboo)	460,000
1,500 miners, who worked in other places, at 2 <i>l.</i> per day	£540,000
2,000 ,, ,, ,, 1 <i>l.</i> ,, 	360,000
	<hr/>
	900,000
	<hr/>
5,000 miners, gross yield for 1861	1,360,000
	<hr/>

VIII.—*Telegraphic Progress, 1850-61, and Present Prospects.*

At the recent presentation of a testimonial, given by the British and Irish Magnetic Telegraph Company, to Mr. Bright, their Engineer-in-Chief, that gentleman spoke as follows :—

“ At the time I first became connected with this undertaking—*some ten years ago*—the number of miles worked by the company was something under 40, while the present mileage is upwards of 4,000. The staff employed at that time did not exceed, or much exceed, a score in number, while probably 1,500 would be not far off the present number. At that time there was only *one telegraph* in existence in the country; and whilst the charge for a message from London to Liverpool was 8s. 6d., the messages were frequently re-transmitted at Rugby and Birmingham. At the present time we have in *Great Britain and Ireland* something like 15,000 miles of line, and the annual receipts for telegraphic messages may possibly surprise some even of you, who may not have thought of the amount of the traffic. The total amount received in this country for telegraph messages at the present time is something, as nearly as possible, about 350,000*l.* a-year; a very large amount to be taken in such small sums.

“ The extension of the *land system* throughout the world has been equally rapid during the same period. There is now, in addition to the 15,000 miles of line in Great Britain, some 48,000 miles of line in America, some 80,000 in Europe, and a smaller, but very rapidly increasing mileage in Australia; the total amount of *land lines* of telegraph in the world being not far off, at the present moment, 150,000 miles. That has been the growth of a very few years. Looking forward to the future, we have now the certainty that, in a very short period, all difficulties will be overcome, and we shall have a line working direct from Ireland to Newfoundland again upon a permanent basis. Not only is that undertaking being actively pushed forward at the present moment, but careful surveys have been made for the northern route by Iceland, Greenland, and Labrador, the result of which, in my opinion, very greatly warrants the projectors of that line in going forward with a view of shortening the circuits to be worked, and so reducing the risks and costs of such a line. Again, in the *South Atlantic*, active endeavours are being made—in fact, the Spanish Government are initiating the arrangements for a line to be carried from Cadiz to the Canaries, thence to the Cape de Verd Islands, and from there to the Island of St. Paul, in the South Atlantic Ocean. There is only one stretch of 800 miles from St. Paul to the Island of San Fernando-de-Noronha, and thence to the Brazilian coast, in a comparatively short distance. From the Brazilian coast the line will pass along the shores of British and French Guiana to Trinidad, and thence by the train of West India Islands to the Spanish possessions of Porto Rico and Cuba. From Cuba a line will be carried to Jamaica and Florida, with another branch to Panama. Going south from the Brazilian coast, a branch line will extend to Rio and Buenos Ayres.

“ On the opposite side, looking towards the east, we are actively engaged in prosecuting a substantial line to India. The line made by Government from Malta to Alexandria continues in excellent working order, and its receipts so far encouraging—the receipts upon the Government line of submarine cable from Malta to Alexandria, which opened in October with returns of 200*l.* per week, have steadily increased until, at the present time, the weekly income is little less than 600*l.* per week. But we are also busily engaged in pushing forward a line in continuation of the Alexandrian line, and we hope within six weeks from this time to have opened a station at the Island of Jubal, at the mouth of the Gulf of Suez, where the Peninsular and Oriental Company's steamers will call, by an arrangement made with the Post Office, to receive and carry on telegraphic messages to India. We have also a vessel regularly equipped and sent out from this country, with 200 miles of cable, to repair the eastern section of the original line, which failed soon after it was laid, between Aden and Kurrachee.

“ Throughout India the telegraph has been extended with scarcely any limit— as, indeed, there is hardly any limit to the construction of any land line. From Kurrachee the circuit is complete to Rangoon. From Rangoon the line will eventually be carried by Singapore and Batavia to Australia. On the other side a line will be taken to Japan ; thence to Kamschatka, where the Russians are pushing their lines eastwards, and onwards by the small chain of the Aleutian Islands, to the western coast of the continent of North America. Thence it is an easy step along the coast to Vancouver’s Island, which is already connected by telegraph with San Francisco.

“ From San Francisco there is the most extraordinary line of land telegraph ever constructed in the world, which passes *viâ* Sacramento by the Salt Lake City to Fort Kearney, and thence to St. Louis, through an entirely uninhabited country, and by means of which the merchant in New York can now communicate directly with San Francisco. Another line will also be carried entirely on British ground through the punchbowl pass of the Rocky Mountains to British Canada. And thus when these different enterprises, in some of which I am concerned, are accomplished, we shall not have a girdle round the earth, but two girdles completely round the world. The telegraph, as we know, had its rise altogether in this country. The first telegraph invented by Cooke and Wheatstone, in 1837, was the forerunner of all telegraphs of all countries. Whether it be Professor Morse’s telegraph of 1843, or others at a later period, the type of all the instruments has been taken from the invention at an earlier date from this country. The first submarine telegraph was laid from this country, and all the different cables have been sent out from this country. We may therefore look upon ourselves, to some extent, as being the nursery of telegraphs for the world.”

ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN
OF THE
MARRIAGES IN ENGLAND AND WALES DURING THE THIRD QUARTER
(JULY—SEPTEMBER), AND OF THE BIRTHS AND DEATHS DURING
THE FOURTH QUARTER (OCTOBER—DECEMBER), OF 1861.

THIS Return comprises the BIRTHS and DEATHS registered by 2,199 Registrars in all the districts of England during the autumn quarter that ended on December 31st, 1861; and the MARRIAGES in 12,527 churches or chapels, about 4,530 registered places of worship unconnected with the Established Church, and 635 Superintendent Registrars' offices, in the quarter that ended on September 30th, 1861.

Returns have been obtained of *marriages* in the first nine months of last year, and they show that if the progress of population is taken into account, the number of alliances formed *was low* during the whole of that period. The *birth-rate* was *not high* in the *first quarter* of the year, but it *rose* above the average in the spring, continued above it in summer, and slightly exceeded it in the fourth quarter. There was no great amount of fatal sickness; for the *mortality* was *below the average* in each quarter of the year 1861.

MARRIAGES.—Of persons who married in the summer quarter (the third), the number was 79,784. As compared with those for the same period in 1860, the returns of all the eleven divisions show a *decrease* except those of the south-eastern counties, the south-western, Yorkshire, and the northern counties. Marriages were

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, returned in the Years
1855-61, and in the QUARTERS of those Years.

Calendar YEARS, 1855-61 :—Numbers.

Years	'61.	'60.	'59.	'58.	'57.	'56.	'55.
Marriages No.	—	170,305	167,723	156,070	159,097	159,337	152,113
<i>Births</i> ,	695,562	683,440	689,881	655,481	663,071	657,453	635,043
<i>Deaths</i> ,	435,337	422,472	440,781	449,656	419,815	390,506	425,703

QUARTERS of each Calendar Year 1855-61.

(I.) MARRIAGES :—Numbers.

<i>Qrs. ended last day of</i>	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	33,401	35,198	35,382	29,918	33,321	33,427	29,186
June ,	41,966	43,833	42,042	39,890	41,267	38,820	38,549
Septmbr. ,	39,892	40,572	39,803	38,599	38,669	39,089	37,308
Decmbr. ,	—	50,702	50,496	47,663	45,840	48,001	47,070

QUARTERS of each Calendar Year, 1855-61.

(II.) BIRTHS:—Numbers.

<i>Qrs. ended last day of</i>	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	173,170	183,206	175,532	170,959	170,430	169,250	166,225
June „	184,718	173,914	175,864	169,115	170,444	173,263	165,277
Septmbr. „	171,500	164,062	168,394	157,445	161,181	157,462	154,700
Decmbr. „	166,174	162,258	170,091	157,962	161,016	157,478	148,841

(III.) DEATHS:—Numbers.

<i>Qrs. ended last day of</i>	'61.	'60.	'59.	'58.	'57.	'56.	'55.
March .....No.	121,713	122,642	121,580	125,819	108,665	103,014	134,542
June „	107,721	110,878	105,631	107,142	100,046	100,099	106,493
Septmbr. „	100,986	86,423	104,216	98,142	100,528	91,155	87,646
Decmbr. „	104,917	102,529	109,354	118,553	110,576	96,238	97,022

few in Northamptonshire, numerous in Cornwall, few in Staffordshire, Derbyshire, and South Wales, numerous in Durham and Northumberland.

The marriage-rate was 1·57 per cent. against the average rate, 1·62. It has rarely been so low as it was in the summer quarter of last year.

BIRTHS.—The total number of children born in the last three months of the year was 166,174. The fourth is that quarter in which births are usually the fewest. The birth-rate was 3·26 per cent., whilst the average for the quarter is 3·23. *It was high* in Lancashire, Durham, Northumberland, and Cumberland.

INCREASE OF POPULATION.—The natural increase of population is the excess of births over deaths. *This excess as exhibited in the registers is 61,257 in 92 days, or about 666 daily.*

In the quarter 16,559 *emigrants sailed from ports* in the United Kingdom at which there are Government emigration officers; and of these 8,068 were of

ENGLAND:—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1855-61, and the QUARTERS of those Years.*

Calendar YEARS, 1855-61 :—General Percentage Results.

YEARS	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
Estmtd. Popln. of England in thousands in middle of each Year....	20,114	—	19,889	19,667	19,448	19,231	19,016	18,804
Persons Married Per ct.	—	1·694	1·712	1·706	1·606	1·654	1·676	1·618
Births „	3·458	3·420	3·436	3·508	3·370	3·448	3·457	3·377
Deaths.... „	2·164	2·226	2·124	2·241	2·312	2·183	2·054	2·264

QUARTERS of each Calendar Year, 1855-61.

(I.) PERSONS MARRIED :—Percentages.

<i>Qrs. ended last day of</i>	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	1·352	1·417	1·420	1·460	1·248	1·408	1·416	1·266
June..... „	1·676	1·703	1·762	1·712	1·642	1·714	1·638	1·648
Septmbr. „	1·572	1·622	1·608	1·598	1·566	1·592	1·626	1·574
Decmbr. „	—	1·999	2·002	2·020	1·930	1·876	1·990	1·978

(II.) BIRTHS :—Percentages.

<i>Qrs. ended last day of</i>	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	3·506	3·592	3·693	3·624	3·567	3·600	3·585	3·603
June „	3·689	3·554	3·495	3·579	3·480	3·548	3·656	3·534
Septmbr. „	3·378	3·275	3·250	3·379	3·195	3·308	3·275	3·261
Decmbr. „	3·264	3·227	3·203	3·402	3·198	3·295	3·264	3·128

(III.) DEATHS :—Percentages.

<i>Qrs. ended last day of</i>	'61.	Mean '51-'60.	'60.	'59.	'58.	'57.	'56.	'55.
March....Per ct.	2·464	2·480	2·472	2·510	2·625	2·295	2·182	2·916
June..... „	2·151	2·207	2·228	2·150	2·205	2·083	2·112	2·277
Septmbr. „	1·989	2·021	1·712	2·091	1·992	2·063	1·896	1·848
Decmbr. „	2·061	2·179	2·024	2·187	2·400	2·263	1·995	2·039

English origin. 1,604 of the English people went to the United States; 5,916 to the Australian colonies.* In the smaller emigration of the Scotch, the preference for Australasia received a still more striking development, whilst the Irish divided themselves into forces not very unequal, between the two destinations. By comparing the returns for the December quarters, it appears that emigrants to the United States were about 52,000 in 1851; from that point the number fell by a great but not constant decrease; it was about 40,000 in 1853, little more than half that number in 1856, about 15,000 in 1860, and the exact number last quarter was 5,698.

The total number of emigrants to all parts in 1861 was 91,770, of which, more than half went to the United States. The Irish element constituted considerably

* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 5,834, while the birthplace of 4,585 emigrants was not distinguished; in the above statement a proportional number of these has been added to those returned as of English origin.

more than half of the emigration to the United States, but it suffered a great reduction towards the close of the year; for the Irish emigrants to that portion of the globe were about 37,000 in the year, but about a fifteenth part of that number in the December quarter.

In the total emigration of 1861, the proportion of unmarried adults to the married was rather less than 3 to 1.

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the Nine
QUARTERS ended 31st December, 1861.

1	2	3	4	5	6	7	8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the <i>Mean</i> Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Tem- pera- ture.
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the <i>last day</i> of each week.		
						In-door.	Out-door.	
1859	£	s. d.	d. d. d.	d. d. d.	s. s. s.			°
31 Dec.	96 $\frac{1}{8}$	43 4	4—6 $\frac{1}{2}$ 5 $\frac{1}{4}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	85—120 102	109,429	683,962	43.3
1860								
31 Mar.	94 $\frac{5}{8}$	44 5	3 $\frac{3}{4}$ —6 $\frac{1}{2}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	115—145 130	118,523	717,264	38.8
30 June	94 $\frac{7}{8}$	52 8	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	5 $\frac{1}{2}$ —7 $\frac{1}{2}$ 6 $\frac{1}{2}$	125—160 142	107,050	692,384	50.5
30 Sept.	93 $\frac{1}{4}$	59 1	4 $\frac{1}{4}$ —7 5 $\frac{5}{8}$	5 $\frac{1}{4}$ —7 $\frac{1}{2}$ 6 $\frac{3}{8}$	125—145 135	101,680	667,680	56.2
31 Dec.	93 $\frac{1}{4}$	56 9	3 $\frac{1}{2}$ —6 $\frac{1}{4}$ 4 $\frac{7}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	115—130 122	115,158	673,680	42.6
1861								
31 Mar.	91 $\frac{6}{8}$	55 1	4—6 $\frac{1}{4}$ 5 $\frac{1}{8}$	5 $\frac{1}{2}$ —7 $\frac{3}{4}$ 6 $\frac{5}{8}$	140—155 147	131,501	758,441	39.9
30 June	91 $\frac{6}{8}$	54 9	4 $\frac{1}{4}$ —6 $\frac{1}{2}$ 5 $\frac{3}{8}$	5 $\frac{1}{4}$ —7 $\frac{1}{4}$ 6 $\frac{1}{4}$	120—140 130	117,802	713,785	51.8
30 Sept.	91 $\frac{3}{8}$	52 1	4 $\frac{1}{4}$ —6 $\frac{1}{2}$ 5 $\frac{3}{8}$	4 $\frac{7}{8}$ —7 5 $\frac{7}{8}$	85—110 97	112,932	693,649	60.4
31 Dec.	93 $\frac{2}{8}$	59 3	4—6 $\frac{1}{4}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	110—130 120	128,533	716,096	45.5

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The average of the highest and of the lowest weekly prices is here shown in cols. 4, 5, and 6, and not the absolute highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns now relate to 649 Unions, &c., comprising a population of 17,697,206 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1860, to—Insane Persons, 31,554; Vagrants, 1,542. The rest of the paupers on that day amounted to 817,800.

PRICES, THE WEATHER, AND PAUPERISM.—The average price of *Consols* was 93 $\frac{2}{8}$; it had been 91 $\frac{6}{8}$ and 91 $\frac{3}{8}$ in the previous quarters of last year. *Wheat* was 59s. 3d., per quarter; it was dearer than in the same period of 1860, and dearer by 16s. than in that of 1859. The means of the highest and the lowest weekly prices of *mutton* have not varied in the last three December quarters. *Beef* of the inferior quality was dearer than in the corresponding quarter of last year. The mean price of the *best potatoes* was 120s. per ton.

Mr. Glaisher writes in his "Remarks on the Weather" (see Appendix), that we must travel back to 1831 for an October so warm as the last, and then back to 1811 for a second example. At Greenwich the *mean temperature* of last October was 5° *in excess* of its average. A marked change took place on 1st November, and the weather was cold on almost every day till the 24th. The 18th of November was singularly cold; its temperature was below 32° the whole day, and the mean was as much as 15°·1 below the average of the day. Another *great change* followed on the 25th, and a warm period which began on that day continued till the 24th of December. The year closed with cold weather. The fall of rain in November (5·2 inches) was the greatest fall in that month for forty-five years, with only one exception. The total fall in 1861 was 20·8 inches. At Truro in the same time it was 39·9 inches; at Lampeter, 43·9 inches; at Stonyhurst, 39·6 inches; at Allenheads, 51·7 inches.

The returns of the Poor Law Board exhibit a *heavy increase of paupers*. The number relieved in-door was 128,533, against an average in the previous two December quarters of 112,293; those who received out-door relief were 716,096, against an average of 678,821.

STATE OF THE PUBLIC HEALTH.—The total *number of deaths* registered last quarter was 104,917; it was *not so great* as in the same quarter of 1859, but *greater* than in that of 1860. It will be seen in the tables that the deaths as returned for last quarter, and distributed in the eleven divisions of England and Wales, are less numerous than they were in 1859, in all of these divisions, with the exception of the *north-western* and the *northern*. The excess in the latter division is unimportant; that in the north-western counties is considerable, and arises from a higher mortality in Lancashire. The population of Lancashire is *less* than that of London by about 340,000 and lives on an area seventeen times as large, but the number of deaths which it returned last quarter was 16,742, while that in London did not exceed 16,000. The deaths in Lancashire were about 2,000 more than in either of the two previous December quarters. In Manchester they were in the three corresponding periods successively 1,743, 1,682, 2,127. Amongst other places in the same county that discover an increase may be mentioned Liverpool and West Derby, Wigan, Leigh, Bolton, Chorlton, Salford, Blackburn, and Preston. There was a decrease in Rochdale.

The *death-rate* for England and Wales last quarter, was 2·051 per cent. of the population, the average being 2·179. Within eleven December quarters the maximum has been 2·4; the minimum 1·995.

DEATHS in the Autumn Quarters, ended 31st December, 1854-61.—Numbers.

DEATHS, &c.	1861.	Total 1851-60, (10 Years.)	1860.	1859.	1858.	1857.	1856.	1855.	1854.
In 125 Districts and 23 Sub-districts, comprising the Chief Towns	57,631	565,923	56,338	57,427	65,596	60,132	52,086	51,985	59,660
In the remaining Districts and Sub-Districts of England and Wales, comprising chiefly Small Towns and Country Parishes ...	47,286	480,086	46,219	52,023	52,957	50,444	44,152	45,037	49,973
All England	104,917	1,046,009	102,557	109,450	118,553	110,576	96,238	97,022	109,633

**AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Autumn Quarters,
ended 31st December, 1851-61.**

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Autumn Quarters, 1851-60.	Average Annual Rate of Mortality per Cent. of 10 Autumn Quarters, 1851-60.	Annual Rate of Mortality per Cent. in the Autumn Quarter, 1861.
		March 31st, 1851.	April 8th, 1861.			
In 125 Districts, and 23 Sub-Districts, comprising the <i>Chief Towns</i>	No. 2,149,800	No. 8,247,017	No. 9,804,598	No. 565,293	Per ct. 2·507	Per ct. 2·308
In the remaining Dis- tricts and Sub-dis- tricts of England and Wales, compri- sing chiefly <i>Small Towns and Country Parishes</i>	35,175,115	9,680,592	10,258,014	480,086	1·924	1·822
All England	37,324,915	17,927,609	20,062,612	1,046,009	2·179	2·061

The population that dwell in the *larger towns* suffered a death-rate of 2·3 ; that of *country parishes* and *small towns* a rate of 1·8, or rather more. The difference may be stated thus :—If the mortality of last quarter prevailed for a year, a proportion of the persons who inhabit towns, equal to five in a thousand, would die, who would survive the close of the year if their lot had been cast amongst a rural population.

But relatively to the standard furnished by the experience of former years in each of the two classes, the *urban* population obtained, or, by the successful application of sanitary science, achieved a greater reduction of the mortality than that which was obtained in the *rural* districts. In the urban, from an average of 2·5, the rate was reduced to 2·3 ; in the rural it fell from 1·9 to 1·8.

In the last quarter, *fever* under various designations, typhus, typhoid fever, low continued fever, and scarlatina, prevailed extensively, and in many parts of the country.

Dr. Acland, the Regius Professor of Medicine in Oxford, has favoured the Registrar-General with the following observations on the fever in that city, and in the region extending over the Thames basin :—

“ Since I heard from you, nothing further has been made out concerning the cause of the two fatal cases of typhoid fever in Worcester College. In consequence of these cases it has been supposed that fever has been very fatal in Oxford. No doubt fever has been prevalent here and there ; but during the quarter in which those two deaths occurred there was but one other fatal case of fever in the ‘ eleven united parishes.’ Seven occurred in the suburbs.

“ It must be admitted that the ground on which Worcester College is situated is low, and not well drained ; but the same may be said of a great part of the city. Our drainage has not yet been put on a systematic footing ; there are still whole streets using cesspools ; still the sewage is cast into the streams ; still we have an inadequate outfall ; still the periodic floods infiltrate the subsoil, fill cellars in the lower streets, and by that infiltration and filling, mix the exudations from old cesspools with the surrounding mould.

“ All this is well known here, and many improvements in details have been made ; but the best minds are well aware that in this district a larger measure

than mere local improvement is required to work a thorough cure, and they are, therefore, not eager to promote lesser plans which they know will prove ineffectual.

“The fact is, *the drainage of the whole Thames valley above Teddington Lock ought to be in the hands of a Government commission*; there would then be some hope,

“1st. That the towns on its banks would be induced to adopt the best known system for disposing of their sewage :

“2nd. That the upper Thames waters would be made as pure as possible, for the use of the metropolis :

“3rd. That the waters would be so regulated as to be quickly let off when accumulating, and retained at a proper level when falling :

“4th. That the death-rates on the banks would be diminished.

“Drainage works have long been in progress in many parts of the upper Thames and its tributaries. Under the Act of last session these will probably be increased, but they have not been nor are likely to be on any large concerted plan, nor on any uniform method. Great opportunities have been lost of buying up mills, of regulating locks and dams, and of making use of railway operations for controlling the streams.

“This is greatly to be regretted, because it may be safely assumed that, were the river and the lands near it under sound management, not only would the death-rate of some districts be diminished, but the commercial value of much meadow land be increased.

“The latter consideration you may no doubt leave to landowners and capitalists; the former deserves your serious attention. A more thorough inquiry into the sanitary condition of this whole upper Thames valley than has yet been made, would be both valuable and interesting. In constant and most obliging intercourse with the members of my profession over a considerable area, I have gathered many facts concerning the health of towns and villages and districts along the banks of the upper Thames; they are often curious and perplexing. They could be tested,—and a most instructive inquiry it would be,—only by a systematic investigation of the course of the river and its tributaries.

“I am inclined to think on the whole that it would appear,

“1st. That the working health of whole districts, and especially of Oxford, would be improved by proper river management, and a general system of drainage:

“2nd. That sometimes the flat parts, sometimes the slopes adjoining the flats, and sometimes the heights are the most unhealthy:

“3rd. That the soil modifies in a high degree the effects of the surface waters; a low place near the river, being on gravel, may be quite healthy, when a place further off, and higher, but on another soil, shall have continuous crops of fever.

“4th. That in considerable areas ague has been very prevalent in the memory of man, and is now unknown; low fever (mild typhoid) having taken its place:

“5th. That in the spots last named, further sanitary improvement would eradicate a great deal of the fever and of the tubercular diathesis:

“6th. That in estimating the condition of these localities we must always consider the habits, clothing, food, dwellings, and wages of the people, as well as the drainage and exhalations from the soil:

“7th. That while no doubt the register of the deaths is a true test of the health of these regions, yet the physician sees, or thinks he sees, feeble power, tardy convalescence, distress, and discomfort incalculable, which is not fully expressed in the death-rate, and which would also be relieved as it (the death-rate) diminished.

“The way to test these propositions would be to make a careful examination, in the main valley and its tributaries, of the villages and towns on all the alluvial levels, on the slopes, and on the heights; noting the nature of the soil geologically; and to compare on the spot your registration returns for certain periods with the local knowledge thus acquired. The results would often be quite different from what would be expected. It would not be a very difficult undertaking, with the help of your office, and of the union medical officers.”

MARRIAGES Registered in Quarters ended 30th September, 1861-59; and
BIRTHS and DEATHS in Quarters ended 31st December, 1861-59.

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1861. (Persons.) No.	4 5 6 MARRIAGES in Quarters ended 30th September.		
			'61. No.	'60. No.	'59. No.
ENGLD. & WALES.... Totals	37,324,915	20,062,612	39,892	40,541	39,803
I. London	78,029	2,803,921	7,347	7,708	7,119
II. South Eastern	4,065,935	1,846,876	3,236	3,184	3,256
III. South Midland	3,201,290	1,295,375	1,971	1,972	2,040
IV. Eastern	3,214,099	1,142,202	1,553	1,563	1,681
V. South Western	4,993,660	1,835,551	3,371	3,260	3,354
VI. West Midland	3,865,332	2,436,137	4,625	4,860	4,825
VII. North Midland	3,540,797	1,288,718	2,120	2,253	2,322
VIII. North Western	2,000,227	2,934,722	7,079	7,321	6,752
IX. Yorkshire	3,654,636	2,015,329	4,247	4,159	4,103
X. Northern	3,492,322	1,151,281	2,248	2,126	2,060
XI. Monmthsh. & Wales	5,218,588	1,312,500	2,095	2,135	2,291

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 31st December.			11 12 13 DEATHS in Quarters ended 31st December.		
	'61. No.	'60. No.	'59. No.	'61. No.	'60. No.	'59. No.
ENGLD. & WALES.... Totals	166,174	162,719	170,091	104,917	102,923	109,354
I. London	23,014	23,739	23,626	15,866	15,618	15,878
II. South Eastern	14,442	13,717	14,642	8,452	8,161	8,984
III. South Midland	10,213	9,948	10,617	6,176	6,020	6,815
IV. Eastern	8,717	8,358	9,252	5,548	5,253	5,782
V. South Western	13,711	13,441	14,693	8,479	8,301	9,544
VI. West Midland	20,999	20,308	21,377	11,792	12,020	13,674
VII. North Midland	10,764	10,580	11,259	6,068	5,889	7,040
VIII. North Western	26,160	24,906	25,584	19,265	17,196	17,091
IX. Yorkshire	17,607	17,593	18,002	10,937	11,684	11,642
X. Northern	10,461	9,955	10,158	6,205	6,295	6,154
XI. Monmthsh. & Wales	10,086	10,174	10,881	6,129	6,486	6,750

REMARKS ON THE WEATHER,

DURING THE QUARTER ENDING 31ST DECEMBER, 1861.

By JAMES GLAISHER, ESQ., F.R.S., &c., Sec. of the British Meteorological Society.

The warm period which set in on the 28th of September, continued till the end of *October*. The mean temperature of this month was $54^{\circ}9$, being in *excess* of the average, of 90 years by $5^{\circ}4$, of 43 years by $5^{\circ}0$, and of the preceding 20 years by $4^{\circ}7$. We must travel back to 1831 for so warm an *October*, and then back to 1811 for a second instance; and examining still further back to 1770, we fail to find a third instance. The mean temperature in 1831 was $55^{\circ}0$, and in 1811 was $55^{\circ}5$.

A marked change in the weather took place on the 1st of *November*, and the temperature till the 24th day was, with the exception of the 5th and 6th days, always below the average, and at times to 10° and 11° . The 18th day was remarkable; its mean temperature was $27^{\circ}1$, being no less than $15^{\circ}1$ below the average temperature of the day. The temperature of the air was below 32° all the day. There were two days of similar character in *November*, 1858, on the 23rd and 24th days, but with this exception we must go back to 1829 for a day of so low temperature in *November*. On the 25th *November* another great change took place from low to high temperature; the mean temperature of the 26th day was as high as 53° , or 26° higher than on the 18th.

This warm period continued to the 24th of *December*, and the average daily excess was $3\frac{3}{4}^{\circ}$; and from Christmas day to the end of the year was cold, exhibiting a deficiency of temperature to the amount of $3\frac{1}{2}^{\circ}$ daily.

The mean high day temperature in *October* was $5\frac{3}{4}^{\circ}$ in excess, in *November* was 2° in defect, and in *December* was 1° in excess of their respective averages.

The mean low night temperature in *October* was 4° in excess, in *November* was $3\frac{1}{2}^{\circ}$ in defect, and in *December* $\frac{1}{2}^{\circ}$ in excess of their averages.

The mean temperature of the air was $4\frac{3}{4}^{\circ}$ in excess in *October*, $2\frac{1}{2}$ in defect in *November*, and 1° in excess in *December*, as compared with the averages of the preceding 20 years; and as compared with last year, *October* was $4\frac{1}{4}^{\circ}$ warmer, *November* was the same in both years, and *December* was $4\frac{3}{4}^{\circ}$ warmer. The mean temperature, therefore, of the quarter was, as compared with the corresponding period of last year, 3° of higher temperature.

The mean temperature of the dew point was $5^{\circ}4$ above in *October*, 3° below in *November*, and $0^{\circ}4$ above in *December*, their respective averages. The mean for the quarter was $0^{\circ}9$ in excess, therefore the amount of water mixed with the air was greater than usual. In *October* the excess of the temperature, both of the air and dew point, being the same above their respective averages, the degree of humidity of the air was that of its average; and in *November* and *December* the air was a little less humid than usual.

The fall of rain in *October* was 0.9 inch, in *November* 5.2 inches, and in

December 1·3 inch. The total fall for the quarter was 7·4 inches, being about quarter of an inch more than the average. The fall in November was the greatest in this month for 45 years, with one exception, viz., in 1853, when the amount of rain was 6 inches. The total fall of rain for the year on the ground is 20·8 inches. The fall of rain during the past quarter has been very nearly the same at all stations.

The mean temperature of the air at Greenwich for the three months ending November, constituting the three autumn months, was 50°·9, being 1°·5 above the average of the preceding 90 years.

1861. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air— Daily Range.		Water of the Thames				
	Mean.	Diff. from Aver- age of 90 Years.	Diff. from Aver- age of 20 Years.	Mean.	Diff. from Aver- age of 20 Years.	Mean.	Diff. from Aver- age of 20 Years.	Mean.	Diff. from Aver- age of 20 Years.					
Oct.	54·9	+5·4	+4·7	53·1	+4·9	51·4	+5·4	16·4	+1·8	57·8	In. ·379	In. +·067	Gr. 4·2	Gr. +0·7
Nov.	40·8	−1·6	−2·6	39·2	−2·6	37·1	−3·0	13·2	+1·6	44·5	·221	−·034	2·6	−0·2
Dec.	41·0	+2·1	+0·9	39·4	+·08	37·3	+0·4	9·9	+0·4	—	·223	+·002	2·6	+0·1
Mean.....	45·5	+2·0	+1·0	43·9	+1·0	41·9	+0·9	13·2	+1·3	—	·274	+·012	3·1	+0·2

1861. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horiz- ontal Move- ment of the Air.	Reading of Thermometer on Grass				
	Mean.	Diff. from Aver- age of 20 Years.	Mean.	Diff. from Aver- age of 20 Years.	Mean.	Diff. from Aver- age of 20 Years.	Amnt.	Diff. from Aver- age of 46 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
										At or below 30°.	Be- tween 30° and 40°.	Above 40°.		
Oct.	87	0	In. 29·842	+152	Gr. 536	— 3	In. 0·9	—1·9	Miles. 180	0	8	23	° 30·3	° 52·4
Nov.	87	— 2	29·561	—195	547	0	5·2	+2·8	320	18	9	3	16·5	50·0
Dec.	87	— 2	29·974	+169	555	+ 3	1·3	—0·7	220	12	17	1	19·6	43·4
Mean.....	87	— 1	29·792	+·042	546	0	Sum 7·4	Sum +0·2	Mean 246	Sum 30	Sum 34	Sum 27	Lowest 16·5	Highs 52·4

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

Snow fell on the 16th of October at Liverpool; on the 1st of November at Exeter, Oxford, Gloucester, Stonyhurst, Ben Rhydding, Otley, Scarborough, Allen-heads and Alnwick; on the 2nd throughout the greater part of the country.

Hail fell on 30 days during the quarter, of which no less than 21 were in November.

Fog prevailed on 68 days during the quarter, of which 28 were in October, 16 in November, and 24 in December.

ENGLAND.—*Meteorological Table, Quarter ended 30th December, 1861.*

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey	29·649	71·5	31·5	40·0	24·3	6·4	49·7	86
Exeter	29·663	66·7	21·2	45·5	30·9	9·8	46·9	88
Ventnor	—	68·0	30·0	38·0	25·0	7·3	49·1	76
Barnstaple	29·647	73·0	19·0	54·0	35·2	11·8	47·4	89
Royal Observatory	29·698	75·6	23·2	52·4	33·7	13·1	45·6	87
Royston.....	29·699	75·6	21·5	54·1	36·2	13·3	44·7	88
Lampeter	29·645	68·4	14·0	54·4	37·5	13·5	44·6	88
Norwich	29·697	73·0	23·5	49·5	31·9	11·8	44·9	89
Belvoir Castle ...	29·623	73·0	18·3	54·7	34·7	13·2	44·3	83
Liverpool	29·679	67·0	25·8	41·2	26·7	8·4	46·2	84
Wakefield	29·659	71·7	19·5	52·2	38·9	13·3	43·7	90
Leeds	—	69·0	20·0	49·0	34·0	11·4	43·0	84
Stonyhurst.....	29·611	70·5	15·8	54·7	37·5	11·8	43·3	87
York	29·623	70·0	22·0	48·0	33·5	10·6	43·8	89
Scarborough	29·651	65·0	25·0	40·0	28·3	7·6	44·9	93
North Shields ...	—	66·2	23·2	43·0	31·3	10·3	43·0	89

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·5	7	8	8	8	5·0	45	11·4
Exeter	0·8	8	5	9	9	5·5	61	8·9
Ventnor	—	5	11	6	9	—	39	10·4
Barnstaple	1·4	7	8	9	7	5·1	51	12·8
Royal Observatory	—	5	7	9	10	6·6	35	7·4
Royston.....	—	5	5	11	10	5·9	69	5·9
Lampeter	0·6	5	9	10	7	7·2	53	15·4
Norwich	1·5	4	7	10	9	6·2	36	5·4
Belvoir Castle ...	1·5	4	2	15	10	6·1	35	6·4
Liverpool	1·1	7	5	12	6	6·7	45	6·1
Wakefield	1·7	6	6	9	10	6·9	48	4·4
Leeds	1·6	5	5	11	10	6·2	42	4·8
Stonyhurst.....	0·8	9	6	6	9	6·9	54	15·4
York	—	7	5	4	14	—	45	4·4
Scarborough	3·2	5	3	14	9	—	20	5·1
North Shields ...	1·8	7	3	8	12	5·9	66	6·4

le of United Kingdom, 1861-60-59.—*Distribution of Exports from, United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (ex-duty) Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (<i>excluding Gold and Silver</i>), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Nine Months.					
	1861.		1860.		1859.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	10,299,	4,014,	13,505,	3,964,	11,703,	4,712,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	16,038,	16,015,	17,977,	12,206,	14,436,	13,537,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	18,039,	10,661,	16,563,	7,814,	16,534,	6,684,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	3,056,	6,037,	3,293,	4,696,	2,983,	4,039,
Eastern Europe; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	9,536,	4,371,	10,763,	5,927,	83,06,	5,071,
Northern Africa; viz., Tripoli, Tunis, Algeria, and Morocco	427,	124,	162,	154,	196,	118,
Western Africa	1,004,	615,	1,143,	695,	871,	512,
Eastern Africa; with African Ports on the Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorla Islands	6,	38,	40,	81,	39,	263,
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	847,	1,500,	869,	1,391,	1,395,	2,310,
South Sea Islands	—	93,	—	18,	—	40,
China, including Hong Kong	6,913,	4,107,	6,803,	4,055,	6,556,	3,179,
United States of America	43,631,	6,803,	33,782,	16,235,	25,612,	17,426,
Mexico and Central America	477,	647,	451,	464,	398,	595,
Sign West Indies and Hayti	3,670,	1,772,	2,836,	1,753,	2,587,	1,927,
South America, (Northern,) New Granada, Venezuela, and Ecuador	433,	1,105,	504,	926,	477,	797,
„ (Pacific,) Peru, Bolivia, Chili, and Patagonia	4,130,	1,929,	3,577,	2,242,	2,624,	1,515,
„ (Atlantic) Brazil, Uruguay, and Buenos Ayres	3,248,	5,021,	3,134,	5,101,	3,740,	4,082,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	19,	6,	92,	4,	80,	7,
Total.—Foreign Countries	121,774,	64,858,	115,514,	71,726,	98,537,	66,814,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	15,803,	13,587,	12,558,	14,897,	10,805,	15,999,
Colonies.—New South Wales and Victoria	4,073,	5,819,	4,086,	5,945,	3,643,	6,329,
„ „ So. Aus., W. Aus., Tasm., and N. Zea.	1,741,	1,648,	1,645,	1,413,	1,414,	1,320,
British North America	5,497,	3,461,	4,124,	3,441,	3,502,	3,384,
„ W. Indies with Btsh. Guiana & Honduras	4,832,	1,784,	5,060,	1,748,	4,581,	1,572,
„ Cape and Natal	818,	1,479,	1,174,	1,450,	1,065,	1,392,
„ W. Co. of Af., Ascension and St. Helena	120,	257,	112,	244,	149,	329,
„ Mauritius	1,814,	410,	1,272,	365,	1,365,	431,
„ Channel Islands	491,	492,	515,	495,	334,	467,
Total.—British Possessions	35,189,	28,937,	30,546,	29,998,	26,858,	31,223,
General Total	£ 156,963,	93,795,	146,060,	101,724,	125,395,	98,037,

IMPORTS.—(United Kingdom.)—First Eleven Months (*January—November*), 1861-60-59-8-7.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(First Eleven Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.		1861.	1860.	1859.	1858.	1857.
		£	£	£	£	£
RAW MATLS.—Textile.	Cotton Wool	35,940,	31,567,	28,762,	26,346,	26,733,
	Wool (Sheep's)..	8,735,	9,727,	8,791,	7,717,	8,653,
	Silk	7,090,	7,881,	8,904,	5,488,	12,168,
	Flax	3,019,	3,377,	3,463,	2,708,	3,363,
	Hemp	1,637,	1,509,	2,205,	1,520,	1,763,
	Indigo	2,698,	2,403,	1,888,	2,167,	2,030,
		59,119,	56,464,	54,013,	45,946,	54,710,
,, ,	Various. Hides	2,377,	2,801,	2,795,	2,005,	3,796,
	Oils	2,987,	3,334,	2,846,	2,979,	3,306,
	Metals	3,164,	3,442,	3,221,	3,191,	3,496,
	Tallow	2,272,	2,815,	2,547,	2,240,	2,713,
	Timber.....	9,228,	8,366,	7,002,	4,638,	6,649,
		20,028,	20,758,	18,411,	15,053,	19,960,
,, ,	Agrc'tl. Guano	1,781,	1,183,	720,	3,634,	2,217,
	Seeds	2,663,	2,697,	2,570,	2,005,	2,494,
		4,444,	3,880,	3,290,	5,639,	4,711,
TROPICAL, & C., PRODUCE.	Tea	5,895,	5,932,	4,510,	4,599,	4,300,
	Coffee	2,424,	2,175,	1,788,	1,505,	1,553,
	Sugar & Molasses	12,431,	11,722,	11,322,	11,868,	14,790,
	Tobacco	1,625,	984,	1,068,	1,522,	1,651,
	Rice	1,697,	778,	658,	1,475,	1,619,
	Fruits	1,155,	954,	950,	569,	1,030,
	Wine	3,563,	3,883,	2,320,	1,803,	3,584,
	Spirits	1,567,	1,769,	1,993,	1,059,	2,597,
		30,357,	28,197,	24,609,	24,400,	31,124,
FOOD	Grain and Meal..	31,568,	27,320,	16,558,	18,714,	17,228,
	Provisions	5,958,	5,036,	2,986,	2,880,	3,770,
		37,526,	32,356,	19,544,	21,594,	20,998,
Remainder of Enumerated Articles		3,239,	3,232,	2,966,	2,586,	3,547,
TOTAL ENUMERATED IMPORTS		154,713,	144,887,	122,833,	115,218,	135,050,
Add for UNENUMERATED IMPORTS (say)		38,678,	36,222,	30,708,	28,804,	33,762,
TOTAL IMPORTS		193,391,	181,109,	153,541,	144,022,	168,812,

EXPORTS.—(United Kingdom.)—Whole Years, 1861-60-59-8-7.—*Declared Real Value at Port of Shipment of Articles of BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.*

(Whole Year.) (Unit 000's omitted.) BRITISH PRODUCE, &C., EXPORTED.		1861.	1860.	1859.	1858.	1857.
		£	£	£	£	£
MANFRS.— <i>Textile.</i>	Cotton Manufactures..	37,544,	42,138,	38,743,	33,402,	30,373,
	„ Yarn.....	9,293,	9,875,	9,466,	9,753,	8,701,
	Woollen Manufactures	11,141,	12,164,	12,033,	9,778,	10,703,
	„ Yarn.....	3,546,	3,844,	3,080,	2,954,	2,942,
	Silk Manufactures ..	2,036,	2,106,	2,145,	1,868,	2,573,
	„ Yarn.....	276,	295,	207,	229,	317,
	Linen Manufactures...	3,859,	4,802,	4,607,	4,124,	4,517,
	„ Yarn.....	1,616,	1,801,	1,685,	1,739,	1,648,
		69,311,	77,025,	71,966,	63,667,	61,774,
„ <i>Sewed.</i>	Apparel	2,154,	2,157,	2,191,	1,944,	2,159,
	Haberdy. and Mlnry.	3,423,	4,011,	4,289,	3,474,	3,894,
		5,577,	6,168,	6,480,	5,418,	6,053,
METALS	Hardware.....	3,425,	3,772,	3,826,	3,280,	4,016,
	Machinery	4,220,	3,825,	3,701,	3,604,	3,884,
	Iron	10,342,	12,158,	12,327,	11,236,	13,406,
	Copper and Brass.....	2,313,	3,002,	2,600,	2,854,	3,124,
	Lead and Tin	1,822,	2,562,	2,552,	2,238,	2,516,
	Coals and Culm	3,593,	3,322,	3,266,	3,053,	3,211,
		25,715,	28,641,	28,272,	26,265,	30,157,
<i>Ceramic Manufcts.</i>	Earthenware and Glass	1,660,	2,094,	1,921,	1,721,	2,151,
<i>Indigenous Mnfrs.</i>	Beer and Ale	1,417,	1,864,	2,116,	1,852,	1,592,
	Butter	484,	633,	717,	541,	562,
	Cheese	131,	119,	138,	91,	114,
	Candles	279,	239,	188,	157,	280,
	Salt	370,	358,	254,	288,	337,
	Spirits	484,	287,	306,	207,	752,
	Soda	604,	963,	1,024,	813,	761,
		3,769,	4,463,	4,743,	3,949,	4,398,
<i>Various Manufcts.</i>	Books	445,	495,	478,	390,	422,
	Furniture	264,	222,	242,	258,	289,
	Leather Manufactures	2,197,	2,129,	1,998,	2,011,	2,289,
	Soap	230,	250,	226,	210,	240,
	Plate and Watches ...	449,	564,	495,	454,	545,
	Stationery.....	649,	750,	840,	804,	742,
		4,234,	4,410,	4,279,	4,127,	4,527,
Remainder of Enumerated Articles		4,556,	3,966,	3,366,	3,524,	3,806,
Unenumerated Articles		10,293,	9,076,	9,413,	7,943,	9,200,
TOTAL EXPORTS		125,115,	135,843,	130,440,	116,614,	122,066,

SHIPPING. — FOREIGN TRADE. — (United Kingdom.) — Years, 1861-60-59-8. —
*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but
excluding Government Transports.*

(Whole Year.) ENTERED :—	1861.			1860.		1859.		1858.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage. (000's omitted.)	Vessels.	Tonnage (000's omitted.)
<i>Vessels belonging to—</i>	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	407	125,	307	435	126,	346	103,	233	70,
Sweden	945	156,	165	1,119	182,	912	151,	720	120,
Norway	2,917	634,	217	2,862	638,	2,564	578,	2,187	483,
Denmark	2,321	226,	97	2,957	292,	2,771	277,	2,400	238,
Prussia and Ger. Sts.	3,457	809,	234	4,067	836,	3,603	799,	3,173	715,
Holland and Belgium	1,546	215,	139	1,758	239,	1,622	225,	1,398	211,
France	1,686	136,	80	2,187	186,	2,334	192,	2,716	234,
Spain and Portugal	436	106,	243	391	101,	399	94,	379	79,
Italy & other Eupn. Sts.	863	239,	277	1,057	299,	699	197,	837	640,
United States	1,932	1,647,	852	1,417	1,361,	1,115	1,078,	1,276	1,187,
All other States	19	7,	379	20	6,	24	7,	17	6,
United Kingdm. & } Depds.....	16,529 21,060	4,300, 6,304,	260 299	18,270 20,104	4,293, 5,762,	16,389 19,909	3,701, 5,389,	15,335 19,256	3,583, 5,233,
<i>Totals Entered</i>	37,589	10,604,	286	38,374	10,055,	36,298	9,090,	34,591	8,816,
CLEARED :—									
Russia	413	123,	297	396	117,	366	109,	242	72,
Sweden	1,041	168,	161	1,163	185,	946	158,	798	139,
Norway	1,903	312,	163	1,746	311,	1,782	343,	1,379	262,
Denmark	3,285	323,	93	3,362	328,	3,161	313,	2,999	302,
Prussia and Ger. Sts.	5,207	990,	190	5,033	936,	5,117	971,	4,832	872,
Holland and Belgium	1,932	278,	143	2,018	319,	2,024	305,	2,070	337,
France	5,135	496,	96	4,068	431,	3,612	394,	4,294	456,
Spain and Portugal	398	107,	29	364	92,	377	93,	399	89,
Italy & other Eupn. Sts.	1,098	304,	276	1,152	332,	837	233,	1,040	297,
United States	1,580	1,369,	866	1,456	1,368,	1,158	1,091,	1,308	1,229,
All other States	23	7,	317	19	6,	26	8,	18	6,
United Kingdm. & } Depds.....	22,015 26,454	4,477, 6,841,	203 258	20,777 23,713	4,425, 6,359,	19,406 23,701	4,018, 6,224,	19,379 23,455	4,061, 5,875,
<i>Totals Cleared</i>	48,469	11,318,	233	44,490	10,784,	43,107	10,242,	42,834	9,936,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the Years, 1861-60-59.*

(000's at unit end omitted.)

(Whole Year.)	1861.		1860.		1859.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—	£	£	£	£	£	£
Australia	6,331,	1,	6,719,	1,	8,625,	3,
So. Amca. and W. } Indies	1,600,	5,115,	1,180,	525,	1,739,	3,385,
United States and } Cal.	39,	28,	3,918,	875,	7,909,	1,794,
	7,970,	5,144,	11,817,	5,401,	18,273,	5,152,
France	2,505,	690,	341,	3,698,	936,	6,366,
Hanse Towns, Holl. } & Belg.	886,	524,	60,	966,	379,	2,927,
Prtgl., Spain, and } Gbrltr.	27,	155,	14,	272,	90,	272,
Mlt., Trky., and } Egypt	53,	29,	36,	19,	318,	15,
China	5,	1,	—	—	—	3,
West Coast of Africa	78,	2,	91,	10,	97,	4,
All other Countries....	640,	38,	226,	27,	2,205,	33,
Totals Imported	12,164,	6,583,	12,585,	10,393,	22,298,	14,772,
Exported to:—						
France	998,	1,053,	10,401,	915,	14,902,	482,
Hanse Towns, Holl. } & Belg.	21,	854,	151,	593,	929,	955,
Prtgl., Spain, and } Gbrltr.	985,	3,	1,357,	1,	739,	—
	2,004,	1,910,	11,909,	1,509,	16,570,	1,437,
Ind. and China (viâ } Egypt)	794,	7,280,	1,302,	8,124,	613,	16,004,
Danish West Indies....	53,	39,	21,	29,	137,	6,
United States	7,298,	84,	1,724,	3,	10,	4,
South Africa	133,	10,	51,	—	5,	5,
Mauritius.....	—	2,	—	—	—	1,
Brazil	20,	150,	357,	167,	98,	99,
All other Countries....	934,	98,	278,	61,	648,	51,
Totals Exported	11,238,	9,573,	15,642,	9,893,	18,081,	17,607,
Excess of Imports	926,	—	—	500,	4,217,	—
„ Exports	—	2,990,	3,057,	—	—	2,835,

REVENUE.—(UNITED KINGDOM.)—31ST DEC., 1861-60-59-8.

Net Produce in YEARS and QUARTERS ended 31ST DEC., 1861-60-59-8.

[Unit 000's omitted.]

QUARTERS, ended 31st Dec.	1861.	1860.	1861.		Corresponding Quarters.	
			Less.	More.	1859.	1858.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs	6,147,	5,861,	—	286,	6,225,	6,209,
Excise	3,896,	4,359,	463,	—	5,360,	5,004,
Stamps	2,098,	2,036,	—	62,	2,018,	2,029,
Taxes	1,282,	1,293,	11,	—	1,424,	1,383,
Post Office	910,	880,	—	30,	830,	860,
Property Tax	14,333,	14,429,	474,	378,	15,857,	15,485
	2,359,	3,530,	1,171,	—	938,	547,
Crown Lands	16,692,	17,959,	1,645,	378,	16,795,	16,032,
	84,	83,	—	1,	83,	83,
Miscellaneous	292,	228,	—	64,	235,	918,
Totals	17,068,	18,270,	1,645,	443,	17,113,	17,033,
			NET DECR. £1,202,309			

YEARS, ended 31st Dec.	1861.	1860.	1861.		Corresponding Years.	
			Less.	More.	1859.	1858.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs	23,774,	23,032,	—	742,	24,825,	24,092,
Excise	18,161,	19,069,	908,	—	19,041,	17,966,
Stamps	8,488,	8,285,	—	203,	7,977,	7,996,
Taxes	3,119,	3,126,	7,	—	3,231,	3,158,
Post Office	3,500,	3,420,	—	80,	3,225,	3,075,
Property Tax	57,042,	56,932,	915,	1,025,	58,299,	56,287,
	9,962,	12,902,	2,940,	—	6,077,	7,591,
Crown Lands	67,004,	69,834,	3,855,	1,025,	64,376,	63,878,
	294,	290,	—	4,	282,	278,
Miscellaneous	1,306,	1,843,	537,	—	1,413,	2,131,
Totals	68,604,	71,967,	4,392,	1,029,	66,071,	66,287,
			NET DECR. £3,363,644			

REVENUE (UNITED KINGDOM).—QUARTER ENDED 31ST DEC., 1861 :—
APPLICATION.

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 31st December, 1861; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th September, 1861, viz.:—	£
Great Britain	—
Ireland	£274,985
	<u>274,985</u>
Income received in the Quarter ended 31st December, 1861, as shown on preceding page	17,068,039
Amount raised per Act 23 and 24 Victoria, cap. 109, on account of Fortifications, &c.	350,000
Amount of Exchequer Bills (Ways and Means) issued in the Quarter.....	1,000,000
Amount received in the Quarter ended 31st December, 1861, in repayment of Advances for Public Works, &c.	549,368
Amount of former charges cancelled	679
	<u>£19,243,071</u>
Balance, being the deficiency on 31st December, 1861, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 31st March, 1862, and for which Exchequer Bills (Deficiency) will be issued in that Quarter.....	3,251,250
	<u>£22,494,321</u>

Paid:—

Amount applied out of the Income for the Quarter ended 31st December, 1861, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 30th September, 1861	£
	3,962,612
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 31st December, 1861.....	9,589,024
Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st December, 1861, viz.:—	
Interest of the Permanent Debt	£6,300,865
Terminable Debt	349,410
Interest of Exchequer Bills (Supply)	113,681
" " (Deficiency).....	5,700
The Civil List	100,959
Other Charges on Consolidated Fund	700,076
Advances for Public Works, &c.	389,500
	<u>7,960,191</u>
<i>Surplus Balance</i> in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 31st December, 1861, viz.:	982,494
	<u>£22,494,321</u>

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Fourth Quarter of 1861.*

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1861.		Weekly Average. (Per Impl. Quarter.)					
		Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
October	5	57 —	37 4	22 6	35 4	42 —	40 4
"	12	56 3	37 6	21 10	37 3	41 8	42 11
"	19	56 3	36 9	21 6	34 9	41 10	41 10
"	26	57 9	36 7	21 11	35 1	42 3	44 8
<i>Average for October ..</i>		56 9	37 —	21 11	35 7	41 11	42 5
November	2	59 5	37 1	22 7	37 5	42 3	44 4
"	9	59 8	37 3	22 8	38 5	42 6	46 —
"	16	59 10	37 6	22 7	37 7	42 6	47 5
"	23	60 5	37 6	23 —	39 1	42 9	44 11
"	30	60 3	37 4	23 —	36 10	42 8	45 2
<i>Average for November..</i>		59 11	37 4	22 9	37 10	42 6	45 6
December	7	60 4	37 —	22 8	37 10	42 7	43 8
"	14	60 8	36 3	22 6	36 1	42 8	45 10
"	21	61 6	36 2	22 5	29 —	42 2	42 11
"	28	61 4	36 4	22 1	35 10	41 4	41 11
<i>Average for December..</i>		60 11	36 5	22 5	34 8	42 2	43 7
<i>Average for the Quarter ..</i>		59 3	36 11	22 4	36 2	42 2	43 11
<i>Average for the Year</i>		55 4	36 1	23 9	35 9	42 5	41 2

RAILWAYS.—PRICES, Oct.—Dec.,—and TRAFFIC, Jan.—Dec., 1861.

Total Capital Ex- pended Mlns.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic whole 52 Weeks. (unit 000's omitted.)		Traffic pr. Mile pr. Wk. 52 Weeks.		Dividends per Cent. for Half Years.		
		2nd Dec.	1st Nov.	1st Oct.	'61.	'60.	'61.	'60.	'61.	'60.	1 July. '61.	31 Dec. '60.	30 Jun. '60.
£					No.	No.	£	£	£	£	s. d.	s. d.	s. d.
44,0	Lond. & N. Westn.	92 $\frac{3}{4}$	91 $\frac{1}{2}$	91 $\frac{1}{2}$	1,030	1,004	4,356,	4,372,	81	83	37 6	52 6	50 —
34,7	Great Western	70	72	68	783	762	2,301,	2,255,	56	57	22 6	35 —	30 —
13,3	Great Northern	113	113	107	330	330	1,385,	1,344,	81	78	37 6	63 9	45 —
16,7	Eastern Counties.	52 $\frac{1}{4}$	55	52 $\frac{1}{2}$	499	499	1,352,	1,327,	52	51	16 3	23 9	21 3
9,9	Brighton	116	116	115	241	223	933,	878,	74	75	50 —	70 —	45 —
13,9	South-Eastern	75 $\frac{3}{4}$	102	78	306	306	1,104,	1,090,	70	69	41 8	60 —	46 8
12,3	South-Western	94 $\frac{1}{2}$	94	95	400	394	1,014,	1,053,	49	51	40 —	52 6	42 2
144,8		88	92	87	3,589	3,498	12,445,	12,319,	66	66	35 1	51 1	40 —
21,4	Midland.....	127 $\frac{1}{2}$	129	124	614	614	2,062,	2,066,	64	65	62 6	70 —	65 —
19,1	Lancsh. and York.	106 $\frac{1}{2}$	106 $\frac{3}{4}$	104	395	395	1,913,	1,932,	92	93	45 —	60 —	55 —
11,6	Sheffield and Man.	45 $\frac{1}{2}$	48	43	231	231	692,	686,	57	57	7 6	15 —	10 —
23,4	North-Eastern	100	102	100	789	764	2,018,	1,994,	49	49	52 6	57 6	52 6
4,5	South Wales	67	62	61	171	171	367,	372,	41	42	27 6	30 —	20 —
80,0		89	89	86	2,200	2,175	7,052,	7,050,	60	61	39 —	46 6	40 6
9,0	Caledonian	103 $\frac{1}{2}$	106	103	219	219	811,	770,	71	67	50 —	55 —	42 6
5,2	Gt. S. & Wn. Irln.	103	105	105	329	329	426,	410,	25	24	50 —	50 —	50 —
239,0	<i>Gen. aver.</i>	90	93	89	6,377	6,221	20,734,	20,549,	62	61	38 7	49 8	41 1

Consols.—Money Prices 2nd Dec., 91 to $\frac{1}{8}$,—1st Nov., 93 $\frac{1}{8}$ to $\frac{1}{4}$,—1st Oct., 91 $\frac{1}{2}$ to $\frac{5}{8}$.

Exchequer Bills.

,,

14s. pm.

,,

13s. to 16s. pm. ,, 6s. to 9s. pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the FOURTH QUARTER (Oct.—Dec.) of 1861.

ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
1	2	3	4	5	6	7
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mlns. £	1861.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1861. Per ann.
28,01	Oct. 2 ...	11,02	3,63	13,36	21,09	19 Sep. 3½ p. ct
28,03	„ 9 ...	11,02	3,63	13,38	20,94	
27,75	„ 16 ...	11,02	3,63	13,10	21,12	
27,92	„ 23 ...	11,02	3,63	13,27	20,81	
28,08	„ 30 ...	11,02	3,63	13,43	20,90	
28,05	Nov. 6 ...	11,02	3,63	13,40	20,77	7 Nov. 3 „
28,21	„ 13 ...	11,02	3,63	13,56	20,73	
28,52	„ 20 ...	11,02	3,63	13,87	20,49	
28,72	„ 27 ...	11,02	3,63	14,07	20,01	
28,94	Dec. 4 ...	11,02	3,63	14,29	20,01	
29,08	„ 11 ...	11,02	3,63	14,43	19,70	
29,43	„ 18 ...	11,02	3,63	14,78	19,45	
29,59	„ 25 ...	11,02	3,63	14,94	19,57	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES. (Wdnsdys.)	Assets.				Totals of Liabili- ties and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.	
Mlns. £	Mlns. £	Mlns. £	Mlns. £			Mlns. £	Mlns. £	Mlns. £	Mlns. £	
14,55	3,81	4,91	12,11	,75	1861. Oct. 2	10,73	17,72	6,92	,76	36,14
14,55	3,81	4,89	12,03	,74	,, 9	10,73	17,44	7,09	,76	36,03
14,55	3,12	3,57	14,41	,81	,, 16	12,15	16,88	6,63	,79	36,46
14,55	3,12	3,68	14,68	,79	,, 23	12,15	14,74	7,11	,83	36,83
14,55	3,13	3,78	14,33	,78	,, 30	11,95	16,65	7,18	,79	36,57
14,55	3,15	4,24	13,52	,80	Nov. 6	11,71	16,46	7,28	,81	36,26
14,55	3,16	3,77	13,19	,81	,, 13	10,81	16,39	7,48	,80	35,49
14,55	3,18	4,10	13,27	,77	,, 20	10,71	16,29	8,03	,84	35,88
14,55	3,13	4,20	14,09	,70	,, 27	10,89	16,19	8,71	,88	36,68
14,55	3,13	5,21	13,27	,74	Dec. 4	10,89	16,22	8,93	,85	36,90
14,55	3,13	5,92	13,10	,74	,, 11	10,90	16,33	9,38	,84	37,44
14,55	3,13	6,79	13,13	,69	,, 18	10,96	16,52	9,98	,83	38,30
14,55	3,14	7,09	13,31	,63	,, 25	11,06	16,83	10,02	,82	38,73

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the FOURTH QUARTER (Oct.—Dec.) of 1861; and in SCOTLAND and IRELAND, at the Three Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 4·35.)	Joint Stock Banks. (Fixed Issues, 3·30.)	TOTAL. (Fixed Issues, 7·65.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2·75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6·35.)
1861.	Mlns. £	Mlns. £	Mlns. £	1861.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
Sept. 28	3,24	2,90	6,14							
Oct. 5	3,40	3,00	6,40							
„ 12	3,49	3,06	6,55							
„ 19	3,52	3,03	6,55	Oct. 19	1,56	2,69	4,25	3,18	2,96	6,14
„ 26	3,53	3,01	6,54							
Nov. 2	3,53	3,00	6,53							
„ 9	3,50	3,02	6,52							
„ 16	3,46	2,99	6,45	Nov. 16	1,68	2,83	4,51	3,29	3,17	6,46
„ 23	3,44	2,97	6,41							
„ 30	3,39	2,94	6,33							
Dec. 7	3,32	2,88	6,20							
„ 14	3,27	2,85	6,11	Dec. 14	1,71	2,94	4,65	3,20	3,21	6,41

FOREIGN EXCHANGES.—*Quotations as under, LONDON on Paris, Hamburg & Calcutta; —and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Syd- ney.	Stand- ard Silver in bars in Lon- don.
	London on Paris.	Bullion as arbitrated.		Prem. or Dis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agnst. Engd.	For Engd.			Agnst. Engd.	For Engd.						
1861.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
Oct. 5 ..	25·77	—	0·4	4 p.	13·10 $\frac{1}{4}$	0·1	—	108 $\frac{1}{2}$	26	24 $\frac{1}{2}$	53 $\frac{1}{2}$	1 p.	60 $\frac{3}{4}$
„ 19 ..	·72	—	0·3	2 „	„	—	0·4	108	„	„	„	„	„
Nov. 9 ..	·62	—	0·3	2 „	·9 $\frac{1}{4}$	—	—	„	„	25	„	„	60 $\frac{7}{8}$
„ 23 ..	·57	—	0·1	4 „	·8 $\frac{3}{4}$	—	0·4	107 $\frac{1}{2}$	„	„	„	„	61 $\frac{1}{4}$
Dec. 7 ..	·62	—	—	—	·9	—	—	109 $\frac{1}{4}$	„	24 $\frac{3}{4}$	54	„	„
„ 28 ..	·62	—	0·2	3 p.	·8 $\frac{1}{2}$	—	0·1	„	„	„	„	„	60 $\frac{1}{8}$

JOURNAL OF THE STATISTICAL SOCIETY,

JUNE, 1862.

REPORT of the COUNCIL for the FINANCIAL YEAR ended 31st December, 1861, and for the SESSIONAL YEAR ended March, 1862, presented at the TWENTY-EIGHTH Anniversary Meeting of the STATISTICAL SOCIETY, held at the Society's Rooms, 12, St. James's Square, on Saturday, 15th March, 1862; with the PROCEEDINGS of that Meeting.

RIGHT HON. SIR JOHN S. PAKINGTON, BART., M.P., *President,*
in the Chair.

AT the present time (March, 1862), the number of Fellows is 374—including 70 Life Members—against 373 (including 70 Life Members)—at the same date in 1861. During the twelve months now ended, the diminution in the number of Fellows by deaths, resignations, and non-payments, has been 23; and the new elections have been 24.

The Income of the Year ended 31st December, 1861 (omitting the Banker's Balance of 216*l.* from 1860) has been 754*l.*, and the Expenditure 744*l.*,—leaving a Cash Balance of 226*l.* to be carried to the current year, 1862.

The Surplus of Assets in favour of the Society, after providing for all claims upon it, was 1,677*l.*, as appears by the appended Balance Sheet of Assets and Liabilities.

The finances of the Society, therefore, have been maintained, during the past year, in the sound condition in which, for so long a period, it has been one of the first cares of the Council to preserve them. Larger resources would, in many ways, increase the usefulness, and expand the operations, of the Society; and these larger resources may, in time, be acquired, by donation, bequest, or in other forms. In the meantime, however, it is manifestly the first duty of the Council so to regulate the engagements of the Society, that by means of the income really available, it shall with dignity and independence cultivate the field of science it has chosen.

The Monthly Meetings have sustained their interest, and have been well attended. The discussions may be fairly described as growing in attractiveness and importance.

The following is the List of Papers which have been read from March, 1861, to March, 1862, viz.:—

- March, 1861.—*M. de Parieu*.—On the Taxation of Enjoyments (Jouissances). Communicated by Mr. Hendriks.
- April, ,, *Mr. W. L. Sargant*.—On the Fallacy of Mr. Warburton's Argument in favour of an Indiscriminating Income Tax.
- ,, ,, *Adjourned Discussion* on Mr. Sargant's Paper, at a Special Meeting.
- ,, ,, *M. Von Buschen*.—On Serfdom in Russia.
- May, ,, *Mr. Purdy*.—On the Earnings of Agricultural Labourers in England and Wales.
- June, ,, *Dr. Steele*.—Statistical Analysis of the Patients in Guy's Hospital, 1854-60.
- Nov., ,, *Mr. Hammack*.—On the Proceedings of Section (F) of the British Association, at Manchester, 1861.
- ,, ,, *Mr. J. T. Danson*.—On the Growth of the Human Body in Height and Weight, in Males, from 18 to 30 years of age.
- ,, ,, *Meeting of December postponed in consequence of the Death of the Patron—His Royal Highness the Prince Consort.*
- Jan., 1862.—*Mr. Hendriks*.—On the Vital Statistics of Sweden, 1749 to 1855.
- Feb., ,, *Dr. Leone Levi*.—On the Progress and Economical bearing of Public Debts in this and other Countries.
- March, ,, *Mr. Horace Mann*.—On the Resources of Popular Education in England and Wales.

The Paper read by Mr. Sargant on the 16th April (1861), on the Income Tax, led, it will be observed, to an Adjourned Discussion at a Special Meeting of Fellows on the 23rd April.

This Society, in common with all other cultivators of knowledge, has had to deplore the sudden and untimely death, on the 14th December last, of His Royal Highness the Prince Consort. His Royal Highness held the office of Patron of the Statistical Society since the year 1840, and manifested constant interest in its progress. He attended several of its Meetings; and in 1860 he discharged, with admirable ability and judgment, the duties of President of the London Meeting of the International Statistical Congress. To us, therefore, the death of the Prince Consort was the loss of a leader and fellow-worker.

At a Special Meeting of the Council, held on the 20th December last—the Ordinary Meeting of that month having been postponed—the following Resolution was adopted, and a copy was forwarded by the President (Sir John S. Pakington, Bart., M.P.), to the proper official quarter, viz.:—

Resolved,—“ That the Council of the *Statistical Society* are “ deeply sensible of the magnitude of the calamity which has “ suddenly fallen upon our Queen and Country by the death of HIS “ ROYAL HIGHNESS THE PRINCE CONSORT; they feel that in him “ the Nation has lost a promoter of Science, Art, Literature, and “ every Social Improvement; as enlightened as he was zealous, and “ as judicious as he was persevering.

“ The Council also feel that by the lamented death of HIS “ ROYAL HIGHNESS, Statistical Science, and kindred branches of “ knowledge, have been deprived of a friend who displayed extensive “ and exact acquaintance with this particular class of Study; and “ who, as the active Patron of this Society for twenty years, afforded “ it the support of his exalted position and distinguished talents.”

The Section (F) of Economic Science and Statistics, at the Meeting of the British Association, at Manchester, in September last, assembled under the Presidency of one of the Honorary Secretaries of this Society (William Newmarch, F.R.S.), and the proceedings of the Section were generally considered to have been more than ordinarily successful.

The Fifth Meeting of the National Association for the Promotion of Social Science was held in August last, in Dublin, and by its results advanced still further the objects and influence of this new and enterprising Association.

The Sixth Meeting of the National Association will be held in London, in June next, in connexion with a visit to this country of the Congr s de Bienfaisance, meetings of which were held in 1855 in Paris, in 1856 in Brussels, and in 1857 in Frankfort.

It will, doubtless, be a leading object with the Council of this Society, to be elected to-day, to afford all possible facilities to the proceedings of both of the important bodies who will constitute the assembly in June.

It may, perhaps, happen that the proceedings of those meetings may indicate some practical method by which the resources of the six or seven distinct bodies at present engaged in the cultivation of different sections of the large field of Social Science—as, for example, Amendment of the Law, Sanitary Science, Actuarial Science, Statistics, Juridical Science, and Political Economy,—may be concentrated in the most effective and least expensive form, for the advancement, not only of the particular pursuit of each, but also of the other collateral pursuits which form essential parts of the general subject.

It must be no small gratification to the Fellows to find that the lapse of a single generation from the foundation of the Statistical Society, has sufficed so completely to accomplish the objects it has pursued that for some time past the investigation of Social Phenomena by means of Facts carefully observed and recorded, has

become one of the divisions of knowledge most ardently and most generally cultivated. The commencement of the enterprise which we now see in full career, had its difficulties and perhaps its errors ; but the progress made has not met with any serious interruption. It has gone on steadily from year to year, and it has advanced from one higher ground to another, because it has faithfully followed the sure path of evidence and induction, and has studiously avoided the brilliant but false lights of over-hasty generalization.

The Statistical Society may fairly claim an honourable place in the history of Social Progress in this country during the last thirty years ; and so long as it succeeds in uniting a regard for the cautions of experience with a readiness to consider favourably suggestive plans of future advancement, it will not fail to uphold its reputation and enlarge its usefulness.

The CHAIRMAN moved the adoption of the Report, together with the Abstract of Receipts and Payments, and the Auditors' Report.

The Resolution, having been seconded, was carried unanimously.

A Ballot was then taken for the election of a President, Council, and Officers, for the ensuing twelvemonths, and the following was declared to be the List, viz. :—

COUNCIL AND OFFICERS FOR 1862-63.

President.

RIGHT HON. SIR JOHN S. PAKINGTON, BART., M.P., G.C.B.

Council.

Charles Babbage, M.A., F.R.S.	Frederick Hendriks
<i>Edward Baines, M.P.</i>	James Heywood, F.R.S.
James Bird, M.D.	<i>Sir Rowland Hill, K.C.B.</i>
Sir John Peter Boileau, Bart., F.R.S.	William Barwick Hodge
<i>Swinton Boulton</i>	Charles Jellicoe
Samuel Brown	Leone Levi, F.S.A.
William Camps, M.D.	William Golden Lumley, LL.M.
David Chadwick	The Rt. Hon. Holt Mackenzie, F.R.G.S.
The Right Hon. T. S. Sotheron Esq., M.P.	<i>Matthew Henry Marsh, M.P.</i>
William Farr, M.D., D.C.L., F.R.S.	William Newmarch, F.R.S.
<i>Humphrey William Freeland, M.P.</i>	The Right Hon. Sir John Somerset Pakington, Bart., M.P., G.C.B.
Sir Francis Henry Goldsmid, Bart., M.P., Q.C.	Frederick Purdy
William Augustus Guy, M.B.	Rev. J. E. Thorold Rogers, M.A.
James Thomas Hammack	Right Hon. Lord Stanley, M.P.
The Right Hon. the Earl of Harrowby.	Colonel W. H. Sykes, M.P., F.R.S.
	Rev. Edgell Wyatt-Edgell.

The names of the New Members of the Council are given in Italics.

Treasurer.

William Farr, M.D., D.C.L., F.R.S.

Honorary Secretaries.

William Newmarch, F.R.S.	William Augustus Guy, M.B.
William G. Lumley, LL.M.	

A vote of thanks to the retiring President, and Council, for their services during the past year, having been carried,—

The President, in returning thanks, said that he had been requested to give the Society some good advice. For his own part however, he thought there was no public body with which he was acquainted that stood less in need of it. The sound financial condition of the Society, alluded to in the Report, was an evidence of the efficiency with which it was conducted. Referring to the much lamented death of the late Prince Consort, he observed that this Society had special reason to regret his loss, which was every day more and more felt. In conclusion, the President expressed his belief that the Society was one of the most useful in the country, and he sincerely hoped that it would continue to progress and prosper.

Colonel Sykes then moved, and Mr. E. Osborn Smith seconded, a vote of thanks to the Honorary Secretaries, and especially to the Editor of the *Journal*, for the efficient and courteous manner in which the duties that devolve upon them are discharged.

The Resolution, which was carried unanimously, was briefly acknowledged by Mr. Newmarch.

A vote of thanks to the Chair terminated the proceedings.

The following is the Report of the Auditors:—

“ STATISTICAL SOCIETY,

“ 12, ST. JAMES’S SQUARE.

“ London, 28th January, 1862.

“ The Auditors appointed to examine the Accounts of the Statistical Society for the year 1861, herewith

“ REPORT :—

“ That they have carefully compared the Entries in the Books with the several Vouchers for the same, from the 1st January, 1861 to the 31st December, 1861, and find them perfectly correct; showing the *Receipts* (including a Balance of 215*l.* 15*s.* 8*d.* from 1860) to have been 970*l.* 11*s.* 1*d.*, and the *Payments* 744*l.* 10*s.* 2*d.*, leaving a Balance in favour of the Society of 226*l.* —*s.* 11*d.*

“ They have also had laid before them an Estimate, made by the Council, of the *Assets* and *Liabilities* of the Society, the *former* amounting to 1,814*l.* —*s.* 11*d.*, and the *latter* to 136*l.* 5*s.* 9*d.*,—showing a Balance in favour of the Society of 1,677*l.* 15*s.* 2*d.*

“ They further find that at the end of 1860, the number of Fellows was 374, of whom 23 Died, Withdrew, or became Defaulters, and 13 new Fellows were elected during the year 1861, leaving 364 as the number on the list on the 31st December, 1861.

(Signed)

“ ALEX. M. TULLOCH, }
“ CORNELIUS WALFORD, } *Auditors.*
“ FREDERICK PURDY. }

The statement of Receipts and Payments, and Assets and Liabilities, is as follows:—

(I.)—RECEIPTS and PAYMENTS of the STATISTICAL SOCIETY for the YEAR 1860.

RECEIPTS.			PAYMENTS.		
	£	s. d.		£	s. d.
Balance in Bank, 31st December, 1860..	215	15 8	Rent.....	75	- -
1861.			Salaries	180	- -
Dividends.....	25	17 10	Printing <i>Journal</i>	309	12 6
Subscriptions:—			Advertising	26	15 6
277 for 1861 at £2 2s. ..	£581	14 -	Library	19	10 5
1 „ 1862 „ 2 2s. ..	2	2 -	Index and Catalogue	10	- 6
Arrears—9 „ 2 2s. ..	18	18 -	Stationery and Sundry Printing	30	5 9
	602	14 -	Postage and Receipt Stamps	16	16 -
Composition	21	- -	Incidental Expenses	22	- 1
<i>Journal</i> Sales	74	7 7	Ordinary Meetings	23	2 10
Advertisements in <i>Journal</i>	30	16 -	Fire and Light	4	4 8
			Furniture and Repairs	11	11 11
			Special Outlays	15	10 -
				744	10 2
			Balance carried to 1862..	226	- 11
	£970	11 1		£970	11 1

(II.)—BALANCE SHEET of ASSETS and LIABILITIES on 31st DECEMBER, 1861.

LIABILITIES.			ASSETS.		
	£	s. d.		£	s. d.
Printing <i>Journal</i> for Dec., } 1861	102	17 9	Cash Balance	226	- 11
Stationery and Sundry } Printing	23	15 -	Investments:—		
Advertising Dec., <i>Journal</i> ..	5	9 -	3 per Cent. Consols ... cost £300		
Index to <i>Journal</i> , vol. xxiv, } 1861	4	4 -	New 3 per Cents. „	567	
	136	5 9		867	- -
Balance in favour of Society	1,677	15 2	Property (Estimated Value):—		
			Books in Library	£400	
	£1,814	- 11	<i>Journals</i> in Stock	200	
			Furniture	100	
				700	- -
			Arrears due and recoverable (say) ..	21	- -
				£1,814	- 11

On the VITAL STATISTICS of SWEDEN, from 1749 to 1855.

By FREDERICK HENDRIKS, ESQ.

[Read before the Statistical Society of London, 21st January, 1862.]

NEARLY a hundred years have now passed since the Vital Statistics of Sweden first attracted the attention of English writers on social economy and statistics. Even before then it was known, to the more scientific of such writers, that life tables based upon public mortuary registers showing only the numbers of the dying at all ages are very defective, and that the character of correctness can be attributed exclusively to tables which indicate the ratios borne by the numbers dying to those living, at all ages, as ascertained by careful enumerations or censuses of the people. The amount of prejudice which then existed against the obtaining and publishing of such enumerations in the more important countries of Europe can be easily understood when we observe how much opposition to useful statistical inquiries is still often experienced. But present difficulties of this kind, as, for example, those which prevent agricultural statistics being upon a proper footing, are but slight when compared with those which had to be faced by the administrative system of last century in its attempts at the collection of statistics. The exceptional circumstances under which Sweden, greatly to her honour, led the way in establishing a correct and valuable statistical record of progress in all that chiefly concerns population, will be presently explained.

The extent of territory embraced within the limits of Sweden and its then dependent province of Finland, was about one and a-half times the size of Great Britain and Ireland, but with a population no larger, at the medium of the first seven censuses of 1757 to 1775, than 2,310,160 souls. This might, until the facts be examined, seem to indicate so extreme a thinness of population as to render it doubtful whether the enumerations of its peculiarly dispersed villages and isolated families were strictly accurate. But fiscal considerations alone, in a country so circumstanced in respect of the almost total absence of great towns, would have called for a very vigilant eye being kept in the respective provinces, however remote, over the widely-scattered elements of the body politic. With such considerations were combined others of a special character. The Swedish Government, much alarmed by the frequent occurrence of famine and pestilence, had the strongest possible desire to see population increase, and fostered its growth by all legislative means within its

power. It appears not to have shrunk from facing facts. The advantages of spreading information and of investigating truths by means of well-directed statistical inquiry thus came to be recognized at a comparatively early period in Sweden. The collection of statistics, particularly those of population, was much aided by the clergy. The functions of the village pastor were in no country of Europe more mixed up with the every-day life of his flock than in Sweden. It devolved upon him not only to make frequent inspections of all households upon occasions of confirmation or first communion, but also to post up (if the commercial idiom be allowed us in describing it) the parish ledger of population, including entries for all the living within his spiritual, and in certain respects civil, jurisdiction, as well as all particulars regarding births, deaths, and marriages, emigrants and immigrants, and their conjugal condition, ages, places of birth, &c.

There are, doubtless, many continental countries in which as accurate, and, in some regards, more minute records have been kept of each individual member of the community. In plain words, such is the case wherever the spy or secret-police system, or a depressing centralization prevails. But such countries have not generally been disposed either to collect, or to publish for review and discussion, statements illustrating the causes of fluctuations in the population. It is true that during the present generation, an age of greater assimilation in administrative practice than any which has preceded it, countries enjoying only an imperfect freedom have exceptionally fallen into the examples set them by freer and more enlightened communities, and have put forth such statements. But to Sweden, and to the intelligence and public spirit of that nation, belongs the credit of having, so early as the middle of last century, set such an example, and of having given to the world the materials which at that time existed nowhere else, for the construction of a national life table.

The Swedish census was taken triennially, from the year 1748 to 1775; and from 1775 to the present time it has been taken quinquennially. The returns during this period of one hundred and fourteen years have been made to Government commissioners, to whom also has been entrusted the duty of collecting and collating the various annual returns of other kinds affecting the statistics of population. Much of the information thus collected at the earlier of the dates mentioned would have been lost to other countries if it had not been for the fortunate circumstance that one of the commissioners, *Wargentin*, Secretary of the Royal Academy of Sciences at Stockholm, and who appears to have been a most able and sensible man, contributed to the transactions of that body some memoirs based on these official returns. The transactions of the academy being in

Swedish, these memoirs would have remained nearly unknown to scientific inquirers in other countries had it not been for the publication in French in the year 1772, of an abridgment of the first twenty-nine volumes. The publication of Wargentin's memoir was particularly useful and opportune. The celebrated Dr. Price and his friend the even more celebrated Benjamin Franklin, were at about this period much interested in the investigation of the very important and practical bearings upon social science of the progress of population. The first essay of Dr. Price upon this subject, and which was communicated in the form of a letter to Franklin, was read to the Royal Society in 1769. It contained, as regards Sweden, no more than a passing notice that in all Sweden the births and weddings were to one another as $4\frac{1}{4}$ to 1 as against $4\frac{2}{5}$ to 1 in France, and as against between 3 and 4 to 1 in towns generally. But, in appreciation of the practical value of correct life tables, no one ever held sounder views than Dr. Price. He concluded the essay referred to by urging the great need then existing for an improvement of the parish registers of London as well as of the country at large. "It would," he said, "give the precise law according to which human life wastes in its different stages; and thus supply the necessary data for computing accurately the values of all life annuities and reversions. It would, likewise, show the different degrees of healthfulness of different situations, mark the progress of population from year to year, keep always in view the number of people in the kingdom, and, in many other respects, furnish instruction of the greatest importance to the State. M. de Moivre, at the end of his book on the 'Doctrine of Chances,' has recommended a general regulation of this kind; and observed, particularly, that at least it is to be wished, that an account was taken, at proper intervals, of all the living in the kingdom, with their ages and occupations; which would, in some degree, answer most of the purposes I have mentioned."

As Dr. Price died in 1791, he did not survive to see a census of the people, even merely as to numbers living, carried out in England. Under such circumstances, he conferred a benefit of great moment to the public in his construction of what is termed the Northampton table. The time which he devoted to it did not, however, interfere with his continuing to enlarge his area of observation by collecting the results of foreign experience, and before he read his second essay to the Royal Society (on the 22nd June, 1775), which is entitled, "Observations on the Difference between the Duration of Human Life in Towns and in Country Parishes and Villages," he had studied with profit the memoir of Wargentin, that had been published in Paris in 1772 (as has already been observed), in the "*Memoires abrégés de l'Acad. Royale des Sciences de Stockholm.*" In this

essay* are quoted Wargentin's tables of the number of living at various ages, and of both sexes, separately, in 1763, and the corresponding rate of human mortality for Sweden and for Stockholm separately. It was obviously with much satisfaction that Dr. Price enlarged upon these observations as containing more distinct and authentic information on the subject than any he had hitherto met with, and he at once saw how much these Swedish statistics would enrich the collection of foreign mortality experiences in his own valuable work.

Some time before his death, Wargentin communicated to Dr. Price continuations of his observations from 1763 to 1776, more curious (as Dr. Price stated), than any that had yet been published, and leaving little to be wished for on the subject, except that similar observations were made in other kingdoms under the direction of men equally able and ingenious with Mr. Wargentin†.

From the results of all these observations for twenty-one years (1755-76), Dr. Price calculated his Swedish and Stockholm tables, both in the form of abstract mortality results and in that of financial deductions therefrom. These were reproduced in the work on "Life Assurance and Reversions" of the distinguished astronomer and actuary, Francis Baily. The next English writer who availed himself of the information conveyed in the vital statistics of Sweden, was one of the most eminent of the early members of this Society, the Rev. T. R. Malthus, who drew some very excellent illustrations to his theories of population and of the supply of food, from these statistical results, in which he was aided by the circumstance of his having travelled in Sweden and other countries of northern Europe, and of having there personally examined and inquired into many facts connected with the condition of the people.

In 1815, that carefully accurate author, Joshua Milne, actuary to the Sun Life Assurance Society, published his "Treatise on the Valuation of Annuities and Assurances." He had well reflected on the advantages of the information obtained through the Swedish tables in showing that the value of female life is not only greater than the value of male life merely amongst annuitants, as had previously been shown in the tontine observations of De Parieux, but that it is also greater when the experience is investigated amongst the population of towns and countries at large. Milne, therefore, preferred to set up a new model of the expectation of life,

* See "Philosophical Transactions," vol. lxy, part 2, and "Price's Observations on Reversionary Payments," edited by Morgan, sixth edit., 1803, vol. ii.

† I take occasion to repeat a question I appended eleven years ago to a Memoir on the History of Life Contingency Tables (see "Assurance Magazine," vol. i), asking, as a literary query of some interest, whether Dr. Price's correspondence and papers have been preserved? If they do still remain, a selection from them might, it is imagined, be well worth publishing.

as applicable to England, in his own original calculations, so well known as the Carlisle observations, for the extreme usefulness and importance of which, his name is held by those who have studied his work, in that high estimation which is the best reward for well-directed labours not yet so fully or so publicly acknowledged as they deserve.

In the tenth and twelfth chapter of Milne's work, and indeed in several other parts of it, he pointed out that the Swedes were at that period exposed to frequent famine and to its consequence, pestilence, such as Englishmen happily enjoyed an almost entire immunity from. From these, and other causes, the general mortality among the whole population, without distinction of sex, was, as Milne observed,* less both at Carlisle, and (as he supposed), in all England and Wales, before the introduction of vaccination, than among females only in Sweden, during the twenty years ended with 1795, although the mortality in Sweden during that period was considerably less than during the time of the observations Dr. Price's table was constructed from.

The collective experience, or mean results for the two periods, are as follows:—

Period.	Annual Deaths in Sweden and Finland.	
	Males.	Females.
21 years, 1755 to 1775 *	1 in 33·25	1 in 35·94
20 ⁷ / ₁₀ „ 1776 „ 1795 †	1 „ 35·60	1 „ 39·11

* *Vide* “Price's Observations on Reversionary Payments,” vol. ii, p. 405, sixth edit.

† *Vide* “Milne's Treatise,” art. 838.

Wargentin died in 1783. In 1791 the Royal Swedish Statistical Commission was enlarged, and Professor Nicander, who had succeeded Wargentin, was appointed its secretary. Publication of the abstracts had been suspended, and the tabulation of the returns from 1772 to 1795 became a work of considerable time and research; in 1799, however, Nicander commenced a series of eight memoirs, published in the transactions of the Academy of Sciences at Stockholm, between that date and the end of 1801, giving the complete results of the returns. These memoirs were made use of by Milne, so far as they appeared to him to apply immediately to the objects of his work, but he observed, that those who take an interest in such subjects will find

* See vol. i, Introduction, p. 23.

it well worth their while to consult the originals, which “give the
“most complete and interesting account of the state of the popula-
“tion of a whole kingdom” that had ever yet been published.*

Since the date of Milne’s work, abstracts of Swedish population returns have, from time to time, appeared in English statistical collections, as for example in Marshall’s work, and in the appendices to Dr. Farr’s contributions to the Registrar-General’s Reports.

A general and very condensed table of the results of the Swedish observations for the prolonged period of more than a century, over which they have extended, has, notwithstanding, hitherto been wanting.

The modern successors of Wargentin and Nicander have, in Sweden, worthily kept up the reputation of the Statistical, or *Tabell Kommission*, as it is called; and their periodical reports would, both in matter and in form, do credit to any country.

Dr. F. T. Berg, the chief officer of this commission, and who was the delegate for Sweden at the International Statistical Congress held in London last year, made to that Congress the following observations upon the population statistics:—

“Quant à la statistique de la population, j’ai eu l’honneur de
“communiquer au Congrès de Paris la méthode d’après laquelle les
“renseignements ont été recueillis en Suède, depuis 1749, sans aucune
“modification essentielle. Dans l’intérêt à la fois de la science et de
“ma patrie, les efforts de mon bureau ont, d’abord, été dirigés vers
“la publication des résultats principaux de cette longue série
“d’observations. Les trois premiers volumes, sous la lettre A, des
“documents pour servir à la Statistique Officielle de la Suède, con-
“tiennent le compte rendu de ces observations.

“L’exactitude de la statistique exigeant que les données primi-
“tives soient autant que possible nominatives, la méthode de recueillir
“les renseignements sur notre population vient d’être essentiellement
“modifiée. Le mode d’enregistrement de l’Angleterre nous a servi
“de modèle. Pour les registres de l’état civil et de la population, tenus
“par le clergé, des modèles uniformes viennent d’être arrêtés. Des
“extraits nominatifs de ces registres, en ce qui concerne les mariages,
“les naissances et les décès, seront communiqués tous les ans au
“bureau central, pour servir à la statistique. Le recensement se
“fera au 31 Décembre, au moins tous les dix ans, par des extraits

* Milne also made use of the three further memoirs published in 1805 by Nicander, and containing the returns from 1796 to 1803. I am not able to ascertain if Milne acquired such a knowledge of the Swedish language as enabled him to consult works in that language with facility. From the catalogue of his library (sold in 1851, and rich in works on mathematics, natural history, and philosophy), it would appear that Swedish literature was amongst the subjects which interested him. It is probable that the notes upon his daily studies, which he was in the habit of recording in *short hand*, would, if deciphered, clear up this point.

“nominatifs des registres de population, tenus aussi par le
“clergé.”*

It is agreeable to observe, from Dr. Berg's remarks, that the very country which took the initiative in the publication of a correct national life-table, should, in its turn, find it of advantage to study the system of record, theoretical and practical, and that of administrative detail, adopted in England in the registration of births and deaths. It is equally pleasing to find, that since the time when such men as Price and Milne enlarged the public knowledge of the value of Swedish statistics, the supply of original and novel information of the kind from Sweden has not diminished but has increased. The library of the Statistical Society continues to receive from its Swedish correspondents contributions which prove the perennial nature of the supply. There have, notwithstanding, been great difficulties in the way of its being utilized. The very copiousness of the information, and its minute detail, deters investigation. Many are content with the mere knowledge that in a certain place, if certain facts be wanted, there they can be referred to. Such, however, is hardly the fashion in which the Society desires to welcome the contributions made by our foreign members to the common stock of knowledge.

A no less real and active obstacle to a diffusion of information on such occasions is when the explanatory text of the statistics—as with the Swedish—is in any other language than one of the three leading vernaculars of Europe. The Statistical Commission at Stockholm has so far recognized this, that in most of their recent publications and reports some brief general description or heading of the contents of many of the tables has been printed in French, as well as in Swedish. But the minor details of the headings are still (perhaps from fear of overcrowding), left in Swedish only; so that in England we must use dictionaries before we can clearly understand the tables.

On the occasion of the Statistical Congress of 1860, in my capacity of one of the secretaries of the census section, I had special opportunities of consulting with Dr. Berg and his assistant, Count Carl Mörner, on the details and particular tables which would best afford us in England, and particularly the Statistical Society, a condensed view of the collective experience of Sweden on vital statistics, from their first collection in the middle of the last century. Count Platen, the Swedish Minister, in London, was also willing to give me his assistance; and had it not been for his recall, the following pages might have appeared in an improved form. As it is, however, the absence of a lengthy review or comment upon the figures leaves room for a larger number of tables being inserted than the limited space in the Society's *Journal* would otherwise have admitted. It will be

* “Report of the Proceedings of the Fourth Session of the International
“Statistical Congress,” p. 46.

found, also, that the tables, in most instances, tell their own tale, and give a very complete view, arranged in a convenient form, of an extensive experience, the surface and duration of which are often large enough to indicate within what limits the law of averages may be expected to oscillate in circumstances like those investigated.

The very important tables on the past, compared with the present, rate of mortality in Sweden, are useful in the lesson which they teach us that the rate of mortality, although it has progressively diminished at some ages, has, nevertheless, increased at certain other ages, and will not justify the literal meaning of the term "preventable mortality" to the extent to which the most sanguine of sanitary reformers would expect.

The general statistics of Sweden, referred to by Price, Milne, and other former English writers, always showed the experience of Finland jointly with Sweden, but the present tables refer to Sweden exclusively, as the figures for Finland, since its cession to Russia, have been sifted out of the account. The present is, therefore, the first publication in England of the past as compared with recent purely Swedish experience in vital statistics.

The tables selected for publication will be found of use, not only in illustration of many questions connected with the distribution and progress of population, but also in connection with the comparative results in other countries, the figures for which, appended to the tables, will to some extent answer the purpose of a running commentary. It should be understood that the credit of using the comparative figures in this way in the editing of the Swedish statistics is entirely due to Dr. Berg, whose great ability and unwearied perseverance are known to many members of this Society. Considering the contracted budget for administration of all kinds allowed by the Diet of Sweden to the Central Statistical Commission of that country, it is surprising that the services of such a succession of competent men has hitherto been secured to that commission. The fact is patent, that these men, beginning with Wargentin and Nicander, two generations ago, and continued to Dr. Berg and his colleagues at the present time, have well performed a difficult and patriotic duty, and all honour to them for it.

The process by which the vital statistics of Sweden have been collected in the last and present century was described as follows by Dr. Berg, to the second meeting of the International Statistical Congress, held at Paris in 1855 :*

"Although they still preserve, in several parishes of Sweden, the register of marriages, baptisms, and burials, extending back to the

* See "Compte Rendu de la Deuxieme Session et Publié par les Ordres de S. E. M. Rouher, par les soins de M. A. Legoyt," Paris, Mai, 1856, pp. 205—210.

“ beginning of the sixteenth century, the keeping of these registers
“ by the clergy only became obligatory after the passing of the eccle-
“ siastical law of 1686, which is still in force.

“ According to the terms of this law, there must be kept, in each
“ parish, and under the care of the bishops and provosts (deans),

1. “ A marriage register, showing the date of the marriage, the
“ names of the married and of their parents, their abode, and the
“ nature of the several certificates which they have had to furnish.

2. “ A register of legitimate and illegitimate births, showing the
“ day and place of birth, the names of the parents, the day of baptism,
“ and the names of the godfathers and godmothers.

3. “ A register of deaths, showing the date of the death, the name
“ of the deceased, the profession, age, and the place of interment.

4. “ A register of all persons leaving the parish or coming there
“ to establish themselves, with a statement of their birth-places and
“ of the places for which they leave the parish.

5. “ A register of parishioners, or complete list of the inhabitants,
“ according to houses and households, intended to serve at the same
“ time the requirements of religion and as an element in controlling
“ the registers of landed property and of householders, kept by the
“ tax-collectors.

6. “ The law likewise prescribes that all the phenomena and
“ extraordinary accidents occurring in the year should be noted in
“ the parish registers.”

Viewing the requirements of this Swedish law from an English point of view, it will at once be seen that the English Act, or injunction, made by Henry VIII's Vicar-General, Thomas Cromwell, and under which parochial registration has been kept up, with certain omissions in the reign of Queen Mary, since the year 1538, only had half of these regulations, viz.: as affecting weddings, christenings, and funerals, and therefore could only go half-way towards the perfection attained under the Swedish Act. The English system, by its rejection of any system of registering in parishes the individuals composing the resident parishioners, and omitting all notice of emigration or immigration, is thus made of less value for statistical research than the Swedish system.

It appears, from the statements of Dr. Berg, that in the reign of Charles XII, of Sweden (1697-1719), grave preoccupations, resulting from a long war and from the ravages of pestilence, prevented use being made of the rich store of materials contained in the parochial registers. It is however questionable, from what Dr. Berg afterwards states, whether if peace had prevailed and the blessings of uninterrupted healthy seasons been enjoyed, the study of vital statistics would have quickly advanced. Famines arrived, and with them the fear of a recurrence of pestilence; and in 1737 a sanitary

commission was appointed. This commission was instructed to report, not only upon the measures which it might deem advisable to recommend for a prevention of the apprehended scourge, but also to inquire into the means of giving an active stimulus to the progress of population.

The sanitary commission wished to obtain information upon the influence which war and pestilence had exercised upon the progress of births, marriages, and deaths. It therefore asked for extracts from the parochial registers, and communicated them to the Government.

The parochial statistics thus afforded the basis of national medical statistics, which, by exposing the inadequacy of the then existing sanitary institutions, led to the appointment of provincial physicians, and to the re-organization and increase of the number of asylums and hospitals, of charitable institutions, and of preventive measures against epidemics.

In 1746, a memoir from the Academy of Sciences of Stockholm was presented to the Diet, which made known, for the first time, the number of people in the Kingdom, calculated from the extracts from the parochial registers. Subsequently to this communication the Diet caused to be drawn up some very detailed schedules of questions or forms of table upon the movement and condition of the population, and enacted that they should be distributed amongst the 2,500 parishes of the kingdom, in sufficient quantity to obtain returns for twenty-five years. The preparation of these returns was entrusted to the pastors, to whom fully detailed instructions were sent with the blank forms. Delays of various kinds prevented, however, the execution of this enactment until the year 1749. But it is stated that since then the clergy have regularly furnished, with the utmost correctness, returns of the progress of population, introducing, from time to time, various improvements in the forms.

Dr. Berg very justly concluded that it would interest the Session of the Congress at Paris to learn what are the documentary records which Sweden now has in its possession bearing upon the progress of population in the parishes, in the provinces, and for the entire kingdom.

The following is the list:—

From the year 1749 an *annual* return of—

1. The *births*, according to sex, legitimate and illegitimate, for each month of the year.
2. Of the still-born, down to 1801, according to sex ; since that time without distinguishing the sex.
3. Of the births of twins, triplets, and of four at one birth.
4. Of the *marriages* in each month.
5. Of the *deaths*, according to sex and age, under 1 year of age,

from 1 to 3 years, from 3 to 5 years, from 5 to 10 years, from 10 to 15 years, and so on, in periods of 5 years, up to 90 years of age; and from the latter age, year by year, up to 100 and upwards.

Deaths according to conjugal condition (to 1801, monthly returns).

Deaths in each month.

Causes of death from epidemics: small-pox, scarlatina, and measles, typhus fever, dysentery, and from the consequences of child-birth. From other sporadic diseases down to 1830. From various accidents: drowning, freezing, suffocation by deleterious gases. Suicides and murders. Executions by the hands of justice (showing also the crimes of the executed).

(It may be here noted that, subsequently to the time when Dr. Berg drew up this list, he recommended the registration of deaths in Sweden being drawn up in accordance with the nosological system of Dr. Farr. His recommendations have been adopted; and Dr. Berg showed us, at the Statistical Congress in London, 1860, some Swedish forms literally translated from those in use by the English Registrar-General's Office.)

6. Marriages dissolved by death in each month.

(For recent years, we believe we are correct in stating, that returns of marriages dissolved otherwise than by death, *i. e.*, by divorce, have been annually published).

The following further particulars have been added to these items of information:—

7. Since 1775, the age of women delivered of children, from 15 to 20 years of age, from 21 to 25, 26 to 30, &c., and above 50 years of age.

The number of persons killed by lightning.

8. Since 1802; (a) The number of *marriages* between bachelors and spinsters, widowers and spinsters, widowers and widows.

(b.) That of *deaths*, in each month, under 10 years of age, from 10 to 25 years, from 25 to 50 years, above 50 years.

(c.) The number of *deaths* of illegitimate children up to the age of 1 year.

Of bachelors above 15 years of age.

Of widows. Of widowers.

Deaths from epidemics in each month.

Deaths from alcoholic intoxication.

9. Since 1804; the number of vaccinated persons.

10. Since 1821; (a.) The number of men marrying for the first time, for the second time, for the third time.

(b.) The ages of the married.

(c.) The number of legitimate children dying under the age of 1 year.

(d.) The number of immigrants and emigrants.

11. Since 1831 ; the number of (a.) marriages, births, and deaths, amongst the nobility, the clergy, the burgher class, the peasantry, and other persons.

(b.) The number of legitimate and illegitimate children still-born, in each month.

(c.) The means of subsistence of women delivered.

(d.) The number of legitimate and bastard children, deceased in the second and third year of age.

(e.) The number and age of persons deceased in the hospitals, asylums, and prisons, in each month.

(f.) The conjugal condition of suicides and executed persons.

(g.) The progress of population amongst persons of religious denominations, other than the religion of the majority of the people.

It was further mentioned by Dr. Berg, that so far as relates to the state of the population as exhibited by the *census* enumerations, there is in existence for each parish, each province, and for the whole of Sweden—

An annual account for the years 1749 to 1751.

A triennial account for the years 1754 to 1772.

And, finally, a quinquennial account for 1775 and subsequent years, as at 31st December of each census year.

These returns comprise the following details :—

1. Sex of the inhabitants.
2. Their ages ; and for each sex, under 1 year, from 1 to 3 years, from 3 to 5 years, from 5 to 10 years, the same heads of schedule as for deaths at corresponding ages.
3. The number of married widowers and widows, and of single of both sexes under 15 years of age, and above 15 years of age.
4. The number of inhabitants according to occupations.
5. The number of blind people.
6. The number of deaf and dumb.
7. The number of lunatics.
8. The number of scholars and students.
9. The number of households.
10. The number, &c., of persons not belonging to the established religion.
11. The population of asylums, hospitals, and prisons.
12. Since 1775, the number of immigrants and emigrants has been recapitulated every five years ; and,
13. Finally, since 1805, the Lapps have been enumerated according to sex, occupation, and households.

Households are classed according to the number of persons of which they are composed, and their means of subsistence.

The labours resulting from the collection and analysis of the tables furnished by the parishes, as well as the preparation of the elements of the annual reports to the King, having rapidly taken a considerable extension, the superior administration, then called the Royal Council of the Chancery (*cantzlie collegium*), which was at first charged with the duty, soon found it impossible to face it; the King was then obliged to confide this task to a special commission, called the *Tabell Commission*, or Chief Commission for the Statistics of Population; this commission, which was created in 1756, has not since ceased its functions. Like the Central Statistical Commission of Belgium, it is composed of the representatives of the chief superior administrations, and of members of the Academy of Sciences at Stockholm, under the presidency of a high public functionary. The secretary of the commission, aided by two employés, fulfils duties nearly approaching to those of the Chief of a Statistical Bureau.

The number of inhabitants of the country (Dr. Berg observes) was long regarded, in Sweden, as one of the most important State secrets, and it was severely forbidden to reveal anything respecting it to the public. It was only in 1762 that permission was given to publish, in the "Comptes Rendus" of the Academy of Sciences at Stockholm, some extracts from the reports of the commission upon the progress of the population.

It only remains to be noted, that the following is the mode of operation in taking the census enumerations:—

In the *towns*, each head of a household states upon a schedule the name, age, and profession of the members of his family. These schedules are collected, during the month of November, by the agents of police.

In the *country* districts, the pastor, when he makes his annual round in November (for purposes connected with his religious duties) verifies, on the spot, if his register of households and inhabitants be in conformity with the real state of the population; he then makes the necessary extracts or corrections.

The tables which follow have been chiefly selected from the following official publications:—

(1.) Statistiska central-byråns Underdåniga Berättelse för åren 1851 med 1855. (Fredje och sista afdelningen.) *Stockholm*, 1860, 4to.

(2.) Tabell Kommissionens underdåniga berättelse för åren 1851 med 1855. (Första afdelningen.) *Stockholm*, 1857, 4to.

The most convenient way of grouping the results is into the following five divisions:—

I.—*General Results.*

TABLE A.—Population of Sweden, and various statistical results

relating thereto, in each of the one hundred and seven years, 1749-1855.

In this table are presented the population, as ascertained at the triennial and quinquennial census enumerations, with adjusted figures for intervening years. *Annual* returns of marriages; of marriages dissolved by death; of children born alive; of bastard children; of still-born children; of women delivered of twins, of three children at a birth, and of four children at a birth; of total deaths, deaths of males and females separately; deaths in childbed; deaths from small-pox; deaths from typhus and typhoid fevers; of persons drowned, males and females separately; of persons who have committed suicide, males and females separately. In parallel columns are given, for each year, the quality of the harvest; the yearly percentage increase of population; the proportion of inhabitants to one marriage; the proportion of marriages dissolved by death to each new marriage contracted in the year; the proportion of inhabitants to one living child born; the proportion of living children born to one marriage contracted; the births of males to 1,000 births of females; the proportion of inhabitants to one death; the proportion of children born alive to one death; the proportionate deaths of females to one death of males; the deaths from small-pox to 100 deaths from all causes; the deaths from typhus and typhoid fevers in proportion to 100 deaths from all causes.

The several thousand statistical facts, and results purely derived from the analysis of these facts contained in the table just described, present so interesting a view of the laws and of the limits which define the fluctuation of such laws as have regulated the progress, distribution, and condition of the people of Sweden, that the table, as a whole, might well justify a challenge from our Scandinavian friends for any other country to produce an analogous table. The many uses to which the results in the present table may be directed by the statistician, the actuary, and the inquirer into social science, are too obvious to require more than the most cursory notice on our part. We have only here to observe, that the following are the meanings of the numerals in the column as to quality of harvests in this Table A.—O = missväxt (failure); IX = ymnig (abundant); VIII = god (good); VII = öfver medelmåttig (above average); VI = fullt medelmåttig (average); V = under medelmåttig (under average); IV, III, II = svag (poor), klen (slender), knapp skörd i aftagande till (scanty); I = nära allman missväxt (almost total failure).

TABLE B.—Showing the proportion that died at *each year* of age (or the co-efficients of mortality) from birth to 99 and 102 years of age, for males and females, separately, during ten separate epochs between the years 1755 and 1855; viz., from 1755-57, 1758-60,

1761-3, 1755-75, 1776-95, 1801-5, for Sweden and Finland together. And from 1816-40, 1841-5, 1846-50, and 1851-55, for Sweden alone.

This table is given in the best analytical form in which it could be presented to the statistician. By simple subtraction of the results from unity we may have, in accordance with the calculus of probabilities, the fractions showing the proportions that survive each age of life, and, therefore, the all-important auxiliary table from which the values of life contingencies at various ages in the different periods could be derived. But, to the statistician generally, the view presented by the table is rather that of a ready *comparison* of the rate of mortality at every age at various periods during the last one hundred years (1755-1855). Comparing the extremes of this long interval of time, it would seem that the mortality of 1755-7, compared with that of 1851-5, shows a diminution from birth to 36 years of age, but an increase at all ages from 37 years of age to the extremity of life, viz., at 98 years, for males. Comparing the results in the same two periods for female life, there is an apparent diminution, in the one hundred years, of the rate of mortality at each age, from birth to 50 years of age, and an increase from 51 years of age to 91, after which the balance again turns into a comparative diminution of mortality to the extremity of life, or 102 years, for females. Some slight, but probably not very material, disturbance of the results may be ascribed to the circumstance of Finland being included in the first, but excluded in the second, period under notice. From 1816 to 1855 the figures refer to Sweden alone throughout the four periods compared between that interval of time. Here, again, irregularities occur. If we contrast the rate of mortality of 1816 to 1840 with that of 1851 to 1855, it will appear that the male mortality of the latter, or more recent period, has diminished from birth and under 2 years of age; has increased from age of 2 to 16, and has diminished again from age of 16 to age of 72, with various alternations of increase and decrease at ages above 72. The comparative female mortality has likewise fluctuated in a manner which might be described by a curve of nearly the same character,—diminishing from birth and under 2 years of age, increasing at most ages under 15, diminishing from 15 to 66, and increasing at most ages above 66.

A very frequent, but by no means a perfect, way of exposition of the value of life at different periods is, to give a statement of the average expectation of life at birth. We therefore extract from these Swedish Statistics the elements of the following comparison:—

Periods.	Average Expectation of Life at Birth.	
	Males.	Females.
SWEDEN.	Years.	Years.
1755-75	33·88	36·60
'76-95	34·74	37·54
1816-40	39·50	43·56
'41-55	41·28	45·60
ENGLAND.		
1838-44	40·36	42·04

The figures here given would indicate an improvement in the one hundred years of about 7·4 years in the expectation of life of all male children at birth, and of 9 years in that of female children. The increase in the value of life has, however, in this method of comparison, been much more largely affected by the diminution of the excessive *infantile* mortality at the earlier periods compared than by any marked continuous improvement in the value of human life throughout all its periods of adult age, maturity, and decline.

Furthermore, it must never be left out of view in such a comparison, that the great scourge of small-pox (the statistics of which in Sweden will be given in the following tables) having been removed in the second half of the period compared by the introduction of vaccination; to that cause alone must a very large part of the increase in the value of life be ascribed. There is, also, something abnormal in the circumstance, that during the first half of the hundred years observed upon, there have been no less than sixteen years out of the fifty in which the harvest is described as having been a total, or almost total, failure; whilst, in the second fifty years, there have been no years in which this extreme result has prevailed, although years of poor or scanty harvest have, of course, occurred.

TABLE C.—It now remains to be shown what is the estimated value of human life, according to the most recent investigation in Sweden. For this purpose we may, with advantage, avail ourselves of the Swedish life table for the fifteen years 1841-55. In the Table C, we have accordingly arranged the two chief columns of primary elements of that national table, viz., the proportions of living and dying, or, in other words, the decrements of life at each age; and the two leading deductions therefrom—the expectation of life, and the probability of dying in one year at each age.

In order to admit of the most compendious possible comparison, the following abbreviated extracts will be found convenient, as we have annexed the expectations of life indicated by the first English life table calculated by Dr. Farr, on the basis of the population and deaths of the year 1841:—

EXPECTATION OF LIFE, SWEDISH LIFE TABLE (1841-55), compared with English Life Table (1841).

Ages.	Male Life.		Female Life.		Both Sexes.	
	Swedish.	English.	Swedish.	English.	Swedish.	English (Mean of Male and Female Life).
	Years.	Years.	Years.	Years.	Years.	Years.
0 (or at birth)	41·28	40·17	45·60	42·16	43·43	41·16
1 Year	48·29	46·72	51·95	47·55	50·15	47·13
2 Years	49·27	48·82	52·92	49·57	51·15	49·19
5 „	49·40	49·64	52·96	50·37	51·22	50·00
10 „	46·48	47·08	49·99	47·81	48·29	47·44
20 „	38·55	39·88	42·12	40·80	40·38	40·34
30 „	31·22	33·13	34·45	34·24	32·90	33·68
40 „	24·33	26·57	27·21	27·72	25·84	27·14
50 „	18·02	20·03	20·11	21·07	19·16	20·55
60 „	12·31	13·59	13·48	14·39	12·97	13·99
70 „	7·40	8·52	8·04	9·01	7·79	8·76
75 „	5·47	6·55	5·99	6·91	5·79	6·73
80 „	3·88	4·94	4·32	5·19	4·17	5·06
90 „	2·42	2·73	2·76	2·83	2·64	2·78

The result of the comparison between the most modern English and Swedish life table, calculated upon the registration of deaths and census enumeration of the two nations, is as follows :—

(a.) For male life. In favour of *Swedish* life, from birth to 3 years of age, to the extent of 1·11 years at birth, 1·57 at 1 year, then decreasing to 0·16 at 3 years. In favour of *English* life from 4 years of age to the extremity of life, the differences gradually increasing from ·07 at age of 4 to 2·24 at ages of 40 to 42, and decreasing (with some irregularity at the higher ages) to 0·31 at age of 90. The age of 90 closes the Swedish male table, that of 104 the English male table.

(b.) For female life. In favour of *Swedish* life from birth to 32 years of age, commencing with a difference of 3·44 years at birth, 4·40 at 2 years, then gradually decreasing to 0·12 at age of 31, turning the scale in favour of *English* life at 32 to the extent of 0·03, and the difference in its favour gradually increasing to 0·99 at age of 66, and diminishing to 0·07 at age of 90. At 91 to 98 the difference again turns slightly in favour of Swedish life, and slightly against it from 99 to the extremity of female life, which is at age of 101 in the Swedish, and of 104 in the English table.

II.—Results illustrating the Progress of Population.

TABLE D.—Gives the absolute increase of the population in each five years from 1751 to 1855; also the increase per cent. for each quinquennium, and for the average of each separate annual ratio of

increase during the periods. I have appended to these results comparative figures for Great Britain and Ireland, and for England and Wales, and Scotland, separately, from 1801 to 1861, from Mr. Hammack's excellent paper on the Census of the United Kingdom in the "Companion to the Almanac" for 1862.

Reviewing the whole century of Swedish experience, it would appear that the *minimum* increase in any quinquennium, was in 1786-90, viz., an increase of 0.39 per cent., and that the *maximum* increase was, in 1821-25, viz., 1.392 per cent. Comparing the figures of the present century with those for Great Britain and Ireland, it may be observed that the ratio of increase in Sweden was, on the average of years, about less by one-third than in the United Kingdom.*

TABLE E.—Proportion of inhabitants of the country to inhabitants of towns, in Sweden, from 1805-55. This table is specially deserving of notice in connection with Swedish statistics. It will be observed, from the interesting comparative figures which Dr. Berg has quoted for nine other countries, that the condition of Sweden, as regards distribution of population between town and country, is singularly exceptional. Not only is the proportion of the rural population to the urban population very small,—not more than 116 inhabitants of towns to 1,000 inhabitants of the country; but this proportion had only slightly varied, *i.e.*, from 106 to 116 per mille in fifty years. The town population of England and Wales, proportionately to country population, was in 1851, 1,006 to 1,000,—being a ratio nine times as great as that of Sweden.

The general vital statistics of Sweden, which are the subject of the present paper, must, therefore, be understood as markedly those of a population of a rural character. Of course these statistics include a certain infusion of town lives exposed, in the small towns

* A brief note as to the comparative *density of population* in Sweden and in the United Kingdom may here be useful.

	Year.	Superficies in Geographical Square Miles.	Population.	Density of Population per Geographical Square Mile.
Sweden	1858	8,031	3,734,240	465
Great Britain and Ireland....	1861	5,774	29,307,199	5,027

The returns for Sweden, in 1858, are from the "Almanac de Gotha" of 1861, which gives the figures upon the authority of Dr. C. F. Frisch, of Stockholm. Whilst, therefore, it may be stated that the superficies of Sweden is to that of the United Kingdom as 139 to 100, its comparative density of population is but little more than 9 to 100.

of Sweden, to very evil influences of bad drainage and other defective sanitary arrangements, but the number of such lives is far too small to materially affect the general conclusions as applicable to a country population. A few more observations will be offered on this point when we have to consider the ratio of deaths to the number of living in the Swedish urban and rural districts.

The best illustration of the comparative smallness of the town populations of Sweden is shown by the following statement of the number of inhabitants in all the communities called *städer* in Swedish, but which, judging by an English scale, we should, in several instances, class with mere villages. It may be noticed that the whole urban population of Sweden, in 1855, was not greater than the population of Liverpool alone in the same year:—

Year.	Inhabitants.	Year.	Inhabitants.
1805	231,953	1835	290,476
'15	241,172	'45	324,168
'25	272,404	'55	378,777

I have taken the trouble of analyzing the census returns of town population in 1855 into the following groups, so as to arrive at a correct general impression of the remarkable smallness of the numbers included in that designation:—

Group.	Towns with Population of	Number of Towns.	Example of Population of Towns in each Group.
I.	15,000 to 98,000	4	{ Stockholm, 97,952; Gothenburg, 29,547; { Norrköping, 17,116; Malmö, 15,808.
II.	10,000 „ 15,000	1	Karlskrona, 14,513.
III.	5,000 „ 10,000	11	{ Gefle, 9,587; Upsala, 8,006; { Calmar, 7,554; Lund, 7,254.
IV.	3,000 „ 5,000	14	Wisby, 4,852.
V.	2,000 „ 3,000	11	Mariestad, 2,195.
VI.	1,000 „ 2,000	28	Wimmerby, 1,559.
VII.	300 „ 1,000	19	Lindesberg, 972; Falsterbo, 303,
		88	Average population, 4,304.

It is important, however, to notice that it is only from the census of 1860, inclusive, that the returns of the population of *Stockholm* will deserve the character of strict accuracy. On the 1st January, 1861, the population of Stockholm is stated to have been 116,972, (54,089 males and 62,833 females): of this number 2,156 were travellers or strangers. It is necessary to keep in view this defect in the accuracy of the enumerations in the *capital*, inasmuch as it more or less affects all the returns of its vital statistics to 1855 inclusive. It should, at the same time, be distinctly under-

stood that the causes of error are strictly local. The tax schedules, or tax registers, used to be the foundation on which the Stockholm population was ascertained, instead of the parochial returns, or population registers, kept by the clergy, and which were, and are still, the foundation of the census in all other parts of the kingdom. In 1860, the census of Stockholm was, for the first time, taken in the same way as in England—by census papers distributed to each household or family,—and this method of procedure will be continued for that city. Thus, the true population will be ascertained, and not the under statements which have hitherto been current. It may be said that the error in the Stockholm census had, in recent years at least, amounted to 10 per cent.

TABLE F.—Proportion of the sexes in the population, from 1751 to 1855. The maximum of comparative female population appears at the earliest date, 1751, viz., 1,124 females to 1,000 males; the minimum at the most recent date, 1855, viz., 1,063. The tendency towards a progressive diminution of the preponderance of female members of the population has been uninterrupted since the year 1810. The proportions in several other countries are appended to this table.

III.—*Results illustrating the Conjugal Condition of the People.*

TABLE G.—Proportion of marriages to population in Sweden, from 1751 to 1855, with comparative returns for other countries.

TABLE H.—Marriages arranged according to civil position, in Sweden and in other countries. The word *civilstand* (*état civil*) is here used in its foreign sense of conjugal condition. For conformity's sake, it might be usefully introduced (in the form of the compound word civil condition) into English statistical nomenclature. This table gives the numbers out of every 100 marriages, which took place at various periods, from 1810 to 1855, between single men and women, widowers and single women, single men and widows, widowers and widows. It gives also the total single men and widowers married out of every 100 males married, and the total single women and widows married out of every 100 females married. There are likewise figures exhibiting the analogous experience of other countries.

The range of facts in this, and indeed in all the other very admirably arranged Swedish tables, to be presently noticed, respecting marriages, is curious and interesting, and full of instructive suggestion on the limits between which certain laws in vital statistics may be expected to fluctuate, even in matters commonly supposed to be materially influenced by the operation of the human will, and upon which our members, M. Quetelet and Mr. Samuel Brown, have so ably written.

TABLE I.—Proportion of first, second, third, fourth, fifth, and sixth marriages of the husband, from 1821-55.

TABLE K.—Ages of the couples in every 100 marriages celebrated. The men and women arranged in separate classes, under 25, 26 to 35, 36 to 50, and above 50 years of age.

If space permitted, we might also introduce tables showing, out of 100 men aged under 25, how many married women aged under 25, women from 26 to 35, women from 36 to 50, women above 50, and the same class of results for the three groups of married men aged above 25, &c. Also tables showing the distribution, according to ages of husband and wife, in every 100 marriages. All these results are for the twenty-five years 1831-55, and the divergence from the law of average is very small indeed when we consider that this class of facts is one to some degree under what is termed the control of the human will.

IV.—*Results illustrating the Fecundity of Marriages, the Birth-rate, Legitimacy, and Illegitimacy.*

TABLE L.—This table is for the one hundred and five years, 1751-55, giving, in quinquennial periods, the proportion of births (children born alive and still-born, separately and together), to the whole population, to the whole female population, to the female population between the ages of 15 and 55, and to the number of marriages contracted.

The facts are further arranged into groups of experience for half and quarter centuries, and are interesting, and well worth quoting in that form of arrangement, as an excellent illustration of the laws which regulate vital statistics when the time and area of observation are sufficiently extensive to eliminate any excess of fluctuations, within or beyond the average, which a more restricted surface or period would present. We will not, for one moment, assert that the observation we have just made is a new one, but it is expedient to urge it, when we recollect that, at the very last meeting of the Statistical Section of the British Association, there was some disinclination expressed to recognize statistics as including in themselves science and natural laws. But vital statistics, at least, in their modern form of comparative perfection, may be said to exhibit, not only recognizable statistical laws, but a science well fitted to illustrate, in the most popular light, the mathematical laws of probability.

A *supplementary* table to Table L. gives, for comparison with that table, the proportion of births to the population. It will be noticed, that comparing England with Sweden, there is a close similarity.

TABLE M.—Proportions of male to female births in Sweden (1749-1855). The number of males born alive to 1,000 females born has augmented from 1,043, in the period 1751-60, to 1,050 in

the period 1851-55. The ratio in England has closely approximated.

TABLE N.—Illegitimate births in Sweden (1776-1855). This is a very comprehensive table, and includes the following particulars for the various quinquennial periods:—1. The number of bastard children born alive. 2. The bastard births to 100 births, including still-born. 3. The bastard births to 100 legitimate births, including still-born. 4. The bastard children born alive to 100 births of living children. 5. The bastard births to 100 births of living legitimate children. 6 and 7. The proportion of bastard births (born alive and still-born, and born alive, separately), to the whole female population. 7 and 8. The same particulars in proportion to the unmarried women over 15 years of age. 9 and lastly. Some of the same particulars for twelve other countries of Europe.

Without entering into any detailed particulars, it may be observed that the figures tell a very grievous tale. Out of every 100 children born alive at the first two periods, in the eighty years' observation (viz., in 1776-80, and 1780-85), there were not more than about 3.11 illegitimate, but the proportion has been gradually growing and growing until, in the last quinquennial period (1851-55), it had attained exactly three times that ratio, or 9.33 per cent.

TABLE O.—Sexual ratio of births, legitimate and illegitimate. Giving the figures from 1776 to 1855 of the number of boys born alive to 1,000 girls born alive, amongst legitimate and illegitimate births, separately.

It has long been known, that although the births of males predominate over those of females in illegitimate as well as in legitimate births, that the ratio of male legitimate births is greater than the ratio of male illegitimate births. The average of eighty years in Sweden gives the figures of 1,047 boys to 1,000 girls for legitimate births, and 1,027 boys to 1,000 girls for illegitimate births, being a difference of 20 boys in the legitimate births. But, as bastardy has increased in Sweden, the difference in the ratio appears to have lessened, and, in the five years 1851-55, the comparative ratios to 1,000 girls have been 1,051 and 1,041 respectively for legitimate and illegitimate births.

TABLE P.—Proportion of births to deliveries (Sweden, 1775-55), with comparisons for six other countries. This table states the total number of births of living children and still-born children to every 100 deliveries. Also the analysis of every 100 deliveries, with the proportions for one child born alive, one child still-born, twins, triplets, and four at a birth. The phenomenon of three children at a birth has occurred much more frequently than might be imagined without reference to such statistics. It would appear that, in Sweden, no less than 248 out of every million of deliveries on

the average of the eighty years, 1776-1855, produced three children at a birth. The number of such triple births has only slightly diminished in the quinquennial periods, and was not less than at the rate of 200 in the million in the five years 1851-55. The rarer phenomenon of four children at a birth has also taken place at the rate of five times to each million deliveries during the eighty years. In two only, out of the quinquennial periods into which these years are divided, was there an absence of its occurrence, viz., in 1791-95, and in 1851-55, but in 1846-50 it happened once, being in proportion to twice out of each million deliveries.

TABLE Q.—Showing the proportionate ages of women delivered of children in Sweden, from 1776 to 1855, arranged in the percentages corresponding with ages under 20, the six periods of five years each to 50 years of age, and ages above 50.

TABLE R.—Proportion of the still-born to the number of births in Sweden, from 1776 to 1855, and in other European countries. This table is stated in the double form of one still-born to so many born alive, and of the ratio of still-born to 100 births. The average percentage for the eighty years has been 2·77, but it has been gradually on the increase, and in the last quinquennium was 3·30. The ratio is, however, higher in the other countries, for which figures are quoted. In England the proportion is not known.

TABLE S.—Proportion of deaths in child-bed to women delivered. Sweden, 1776-1855. This table shows that the deaths from child-bed did not exceed 0·44 per cent. in the five years 1851-55, or only about one-half of the mortality from this cause at the commencement of the period observed upon, viz., in 1776-80.

Returns of this kind, when well-authenticated, from countries in more southern latitudes, will be interesting for comparison.

V.—*Results illustrating the Death-rate, Deaths from Suicides and Accidental Causes, from Small Pox, &c.*

TABLE T.—Deaths, and their proportion to inhabitants, to births, and to sexes. This table for the twenty-one quinquennial periods, from 1751 to 1855, gives the absolute number of deaths, the number of inhabitants to one death, the number of deaths to 100 inhabitants, the ratio of children born alive to 100 deaths, the deaths of females to every 100 deaths of males.

The supplement to this table gives information upon similar points, based on the statistics of other countries.

The average of the one hundred and five years, 1751-1855, for Sweden, exhibits a mortality of about 1 in 40, or 2½ per cent. The improvement has been progressive, but by no means uniform. For example, the years of the highest mortality, were from 1806 to 1810, 3·07 per cent., or 1 in 32·5; the years of lowest mortality, from 1841

to 1845, 2.03 per cent., or 1 in 49.3. The normal rate of Swedish mortality may now, in round figures, be said to be 20 per cent. less than it was in the average experience of the last hundred years.

The Swedish rate of mortality, compared with that of most of the other European countries whose death-rate has been ascertained, shows very favourable results.

TABLE U.—Proportion of deaths to inhabitants and to births in each province of Sweden, and collectively in its rural districts, in the towns, and in Stockholm, separately, for the two quinquennial periods, 1846-50 and 1851-55.

This table is an exception from all the others, inasmuch as they give results only for the whole kingdom, whilst, in this instance we have the results separately for the towns where the mortality exceeds that of the country to an extent to which but few parallels can be found elsewhere.

The mortality of the country districts was, from 1846-50, 1.99 per cent., or 1 in 50.25; in the towns collectively, 2.98 per cent., or 1 in 33.56; but in Stockholm no less than 3.85 per cent., or 1 in 25.97. Again, in 1851-55, it rose to 2.03 per cent., or 1 in 49.26 in the country districts; to 3.31 per cent., or 1 in 30.21 in the towns collectively; and to 4.46 per cent., or 1 in 22.42 in Stockholm. This rate of mortality, high as it is, is by no means exceptional in Stockholm; in the ten years, 1831-40, the mortality amongst males was 5.48 per cent., or 1 in 18.25; and the mortality amongst females 3.97 per cent., or 1 in 25.19. A correction of about 10 per cent. in the numbers, out of which one death has occurred in Stockholm, is, however, needful to balance the inaccuracy in the censuses of that capital prior to 1860, as explained under the remarks on Table E, *ante*.

TABLE W.—Deaths distributed according to months in Sweden, from 1749 to 1855, and in six other countries.

It will be observed that, on the average of one hundred and seven years, the month of April claims the maximum, or 10.03 per cent. of the aggregate deaths; the month of July the minimum, or 7.01 per cent.

The table would be more perfect if meteorological averages were accessible for the same period of time.

TABLE X.—Suicides in Sweden, from 1776 to 1855. This table separates the males from the females, and the single from the married, in three groups of ages, under 25 years, from 25 to 50, and above 50 years of age. It also gives the percentages borne by suicides, in each quinquennial period, to the total number of deaths from all causes. The results shown are very remarkable. The number of self-murderers (to use the words of literal translation from the Swedish, *antal sjelfmördare*) has increased in the present

generation to nearly five times what it was eighty years ago. For example, in 1776-80, out of every 1,000 deaths of males, 1.1 was by suicide, but in 1851-55, no less than 5.2; out of every 1,000 deaths of females in 1776-80, 0.4 was by suicide, but in 1851-55 no less than 1.3.

TABLE Y.—Deaths from accidental causes. This table likewise gives results, from 1776 to 1855, for the separate periods of five years each. It distinguishes the deaths amongst males and amongst females, arising from the four causes of drowning, suffocation from the fumes of charcoal, destruction by lightning, and hydrophobia. The percentages of deaths from drowning (a certain proportion of which, doubtless, belong in strictness to suicides, and if ascertainable, would have been included in the preceding table), are given in the ratio borne to the total deaths. The maximum occurred in 1821-25, when the males drowned were no less than 3.14 per cent. of the males deceased from all causes. The minimum occurred in the first two periods from 1776 to 1785, when the proportion amongst males was 1.40 per cent.

TABLE Z.—This is the last table of the present selection of statistics, although it by no means exhausts the mine of valuable and curious materials contained in the Swedish official returns. It shows a class of facts, the interest and importance of which has been fully recognised by the statesmen and scientific men of all nations, viz., the proportion of deaths from small-pox and typhus fever, and of vaccinated to children born. These figures for Sweden, apply to the one hundred and seven years, 1749 to 1855. The scourge of small-pox reached its culminating point in the quinquennium 1751-55, when the deaths from small-pox were 35,415 in number, or 14.76 per cent. of the deaths from all causes. They gradually fell, with some fluctuations, as low as to 17,847 deaths in 1791-95 or 6.37 per cent. of the total deaths. In the five years immediately preceding the introduction of vaccination, viz., in 1796-1800, the small-pox deaths again rose to 23,381, or 7.83 per cent. In 1801-5 vaccination was systematically introduced; the deaths from small-pox during that quinquennium fell to one-half what they were in the quinquennium preceding, viz., to 11,604 in number, and 3.99 in percentage to total deaths. Since that period, whilst the number of vaccinated children in its ratio to children born alive, has been increasing from its minimum of 13 per cent. in 1801-5, to its maximum of 81 per cent. in 1851-55; the maximum of small-pox deaths has been 4,888, in 1836-40, or 1.41 per cent. of total deaths, and their minimum has been 316, in 1841-45, or only 0.09 per cent.

The number of deaths from typhus and typhoid fevers was recorded from 1749 to 1830, but not subsequently. The maximum was 58,135 in the five years, 1806-10, being 15.32 per cent. of deaths

from all causes. The minimum was 16,495, in 1751-55, being 6·87 per cent. of deaths from all causes. The discontinuance of the record of deaths from this class of fevers, from 1830 to 1855, is perhaps not much to be regretted, as statistical nosology in Sweden, like in other countries, has until recently been in an imperfect condition. We have already noticed that the forms used for recording the causes of death in England have been introduced into Sweden, interesting comparative returns may, therefore, be looked for in future.

There is one circumstance that ought not to be overlooked in considering the statistics which prove the excessive rate of mortality in the Swedish towns, and that is the intensity with which the modern plague of cholera is felt there.

One of the best descriptions of the ravages of Cholera in Sweden which we have ever met with, was in a letter from Karlskrona, inserted in the German newspaper called the "Hamburg Correspondenten," of the 14th October, 1853. The annexed is an abridged translation of this letter.

"*Karlskrona, Sweden.*—This is the town which has suffered most severely from the cholera. Upwards of 15,000 persons have died of this disease in Sweden, Norway, and Denmark, since midsummer. The victims in Sweden have been about as many as in Norway and Denmark together; in the latter kingdom about 5,000 died, the German portions remaining unscathed.

"In Scandinavia this plague raged most violently in Karlskrona and Norrköping, in Sweden, and in Christiania, the capital of Norway, but worst of all, in proportion to population in Karlskrona, where, up to the middle of September, nearly one-tenth part of the population had been swept off.

"In London, at the time of the fearful plague of 1665, one-eighth of the population died; Christiania is three times as large as Karlskrona, and yet a less number died there than here. But in Christiania the disease seized persons of every class, instead of being confined, as was the case in most other places, chiefly to the poorer classes.

"The following description of Christiania will give us some idea of the misery in Karlskrona. 'Christiania, in September, 1853. The cholera has assumed a frightful character, it attacks all classes, and no age is spared. Bad as the disease was in Copenhagen, it is much worse here, both with regard to the number of cases and the mortality. Many died within an hour or an hour and a-half. In this case they are almost instantaneously seized with cramp, of the terrible nature of which scarcely an idea can be formed. It requires not a little fortitude merely to witness its effects on the patient, to hear his heartrending cries, and to see his fruitless attempts to diminish the pain. On Sunday, the 4th of September, the church was completely crammed. Never, excepting on high festival days, were the churches seen so full, nor was there witnessed such excitement among the congregation, or such warmth of fervour in the preachers. The topic was the severe time of trial for the people. Sobs and sighs echoed through the churches, and every one prayed to the All Merciful. But even here the destroying angel appeared—in both churches two cases of cholera occurred during the service, so that the preacher had to stop while the sick were carried out. Many were led by this visitation to enter the House of the Lord, who otherwise never entered its doors.'

"Accounts from Karlskrona would be still more affecting, if we had a description of the misery of this city. It is 173 years old, and its short history is replete with misfortunes. It was founded in 1680 (immediately after the peace of

Fontainebleau and Lund), when it received the name of Charles XI. The years in which this rock-bound city has most suffered from plague and other diseases, have been 1690, 1711, 1741, 1789, 1808, and 1833. Ten years after it was founded, a severe plague raged, the number of whose victims is uncertain. Twenty years later came the plague (which also visited Hamburg severely) and carried off in the town alone 7,000 persons, in the whole district (Län) 20,000. A gravestone at Karlskrona still preserves the remembrance of this terrible plague year. In 1741 there raged an extremely fatal disease (which first broke out on board the fleet), and from which 25,000 persons died. How many of these belonged to the community of Karlskrona is not known, but reports of that time state that this place was like plague-visited Egypt, where according to the Bible (Exodus xii, 30) 'there was not a house where there was not one dead.' In 1789 a plague was brought over by a ship (by Russian prisoners), from which more than 6,000 died. In 1808 a contagious disease raged first in the fleet and then in Karlskrona itself. Many surviving eye witnesses of that dreadful misery, shudder at the bare remembrance of it. In the enchanting 'nachtigallsthal,' repose the bones of many thousands of its victims."

There can be no doubt that the way in which statistical evidence shows that small-pox was overcome in Sweden by the introduction of vaccination, ought to be understood by the Swedish people as a lesson that the mortality from epidemics can be diminished within certain given limits, and that this is no mere dream of philosophical theory, but a fact which their own experience proves. At the same time, the doctrine of limits must never be forgotten in this matter, or there will arise the disappointment of non-realization of all the results anticipated by those sanitary reformers, who call all mortality above 17 in the 1,000 "preventible mortality."

It is said that one cause of evil—intemperance in the abuse of ardent spirits, has somewhat diminished in Sweden through the influence of legislation, which greatly restricts the number of distilleries; but let us further hope that other evils will quickly disappear, and that the promotion of good drainage, of regulations to prevent over crowding, noxious emanations, unhealthy food and water, and those physical enemies which destroy the moral faculties, will be so fostered and encouraged in the future of its free and enlightened community, that the result may be shown in the rate of town mortality more nearly approaching, than hitherto, the rate prevailing in its country districts, which it must be admitted by statisticians is highly favourable and encouraging. If these words of ours should in any way, even indirectly, tend to further inquiry being made in that direction, it would be a source of much satisfaction. In England we feel a high degree of esteem for the Scandinavian race, and their welfare is, in every respect, dear to us; hence it will always be a pleasing task to seek for the evidence of their progress, even though it be embodied in the unrhetical form of a statistical table.

TABLE A.—*Population of SWEDEN, and various Statistical Results relating thereto, in each of the 107 Years, 1749-1855.*

Year.	Population.	Marriages.	Marriages Dissolved by Death.	Children Born Alive.	Deaths.	Of which Deaths were	
						Males.	Females.
1748	1,736,482	—	—	—	—	—	—
'49	1,746,449	15,046	12,184	59,483	49,516	24,042	25,474
'50	1,763,338	16,374	11,304	64,511	47,622	23,441	24,181
'51	1,785,727	16,599	12,018	69,291	46,902	23,082	23,820
'52	1,799,188	16,761	10,519	64,973	49,467	24,573	24,894
'53	1,819,245	15,923	10,655	66,007	43,905	21,813	22,092
'54	1,837,314	17,457	12,115	68,759	48,645	24,167	24,478
'55	1,853,689	17,097	12,045	70,008	51,090	24,998	26,092
'56	1,867,070	16,005	13,091	67,987	52,062	25,847	26,215
'57	1,870,372	15,078	13,980	61,675	55,829	27,278	28,551
'58	1,867,699	15,273	17,443	63,262	60,527	29,362	31,165
'59	1,876,994	18,529	14,511	63,865	49,162	24,308	24,854
'60	1,893,248	18,705	13,599	68,384	46,721	22,973	23,748
'61	1,916,848	18,253	12,494	67,324	49,143	24,244	24,899
'62	1,930,541	17,428	15,012	68,268	59,994	29,547	30,447
'63	1,940,011	16,850	15,910	68,231	64,180	31,874	32,306
'64	1,954,077	17,219	14,604	67,988	53,364	26,461	26,903
'65	1,964,824	16,066	15,527	65,872	54,566	27,382	27,184
'66	1,981,600	16,419	13,421	67,061	49,726	24,767	24,959
'67	1,997,447	16,539	15,077	70,744	51,272	25,741	25,531
1768	2,006,790	17,039	13,538	67,719	54,751	27,202	27,549
'69	2,015,127	16,463	13,389	66,954	54,991	27,047	27,944
'70	2,030,574	16,537	14,038	67,172	53,071	26,163	26,908
'71	2,041,081	15,873	16,411	65,988	56,827	28,266	28,561
'72	2,025,037	13,928	23,023	58,972	76,362	38,871	37,491
'73	1,972,407	15,560	27,638	51,164	105,139	51,620	53,519
'74	1,997,809	17,433	10,789	68,520	44,463	21,535	22,928
'75	2,020,847	19,002	13,100	71,642	49,949	24,573	25,376
'76	2,041,289	18,310	12,928	66,869	45,692	22,630	23,062
'77	2,057,147	18,577	13,356	67,693	51,096	25,259	25,837
'78	2,073,296	18,692	12,496	71,901	55,028	27,583	27,445
'79	2,089,624	18,035	12,160	76,387	59,325	29,210	30,115
'80	2,118,281	17,938	12,060	75,122	45,731	22,864	22,867
'81	2,132,912	16,638	14,353	71,130	54,313	27,100	27,213
'82	2,140,986	16,415	17,773	68,488	58,247	29,466	28,781
'83	2,143,570	17,124	16,121	64,969	60,213	30,739	29,474
'84	2,145,213	16,031	15,548	67,605	63,792	32,272	31,520
'85	2,149,773	16,791	15,864	67,497	60,770	30,260	30,510
'86	2,156,109	17,297	16,373	70,935	55,951	28,079	27,872
'87	2,163,812	17,253	15,994	68,328	51,998	26,163	25,835
1788	2,171,866	17,235	15,261	74,019	57,320	28,681	28,639
'89	2,163,765	17,369	18,583	70,127	69,583	37,608	31,975
'90	2,158,232	18,063	18,100	66,710	63,598	32,425	31,173
'91	2,178,719	23,786	16,465	71,613	55,946	27,712	28,234
'92	2,211,643	22,191	14,166	81,063	52,958	26,696	26,262
'93	2,239,119	19,934	13,985	77,033	54,376	27,219	27,157
'94	2,266,990	18,509	14,341	76,429	53,377	26,822	26,555
'95	2,281,137	17,279	17,626	72,947	63,619	31,612	32,007
'96	2,300,793	19,747	14,274	79,446	56,474	28,502	27,972
'97	2,322,814	19,523	14,868	80,374	55,036	27,865	27,171
'98	2,344,228	19,349	15,043	78,593	53,862	27,186	26,676
'99	2,356,993	17,283	16,827	75,274	59,192	29,950	29,242
1800	2,347,303	17,528	19,692	67,555	73,928	36,751	37,177

TABLE A.—Population of SWEDEN, &c.—Contd.

Year.	Population.	Marriages.	Marriages Dissolved by Death.	Children Born Alive.	Deaths.	Of which Deaths were	
						Males.	Females.
1801	2,356,027	17,057	16,457	70,629	61,317	30,529	30,788
'02	2,374,358	18,500	15,880	74,963	56,035	28,103	27,932
'03	2,391,837	19,491	16,117	74,644	56,577	28,401	28,176
'04	2,408,108	19,335	17,284	76,443	59,584	29,995	29,589
'05	2,427,408	20,197	16,094	76,552	56,663	28,168	28,495
'06	2,428,729	19,492	16,963	74,581	65,728	32,724	33,004
'07	2,434,721	19,959	17,789	75,842	62,318	30,743	31,575
'08	2,418,840	19,762	22,141	73,963	82,311	41,890	40,421
'09	2,382,075	18,817	26,859	64,300	93,532	47,574	45,958
'10	2,377,851	25,780	20,311	78,916	75,607	38,095	37,512
'11	2,396,581	25,615	18,898	84,862	69,246	35,244	34,002
'12	2,407,679	22,054	21,580	81,079	73,095	36,992	36,103
'13	2,416,548	18,745	18,057	72,021	66,266	33,810	32,456
'14	2,434,541	18,281	15,664	75,837	60,959	30,534	30,425
'15	2,465,066	23,553	15,504	85,239	57,829	28,908	28,921
'16	2,497,484	23,069	14,625	87,644	56,225	28,639	27,586
'17	2,521,442	20,938	16,518	83,821	60,863	30,456	30,407
'18	2,546,411	21,427	17,188	85,714	61,745	31,410	30,335
'19	2,561,780	20,795	19,305	84,250	69,881	35,182	34,699
'20	2,584,690	21,722	17,585	84,841	62,930	31,572	31,358
1821	2,610,870	22,890	16,506	92,072	66,416	33,466	32,950
'22	2,646,314	24,431	16,633	94,309	59,390	30,500	28,890
'23	2,689,031	23,993	16,171	98,259	56,067	28,802	27,265
'24	2,726,877	23,907	15,473	93,577	56,256	29,071	27,185
'25	2,771,252	23,640	15,638	100,315	56,465	29,180	27,285
'26	2,804,926	22,525	17,315	97,125	63,027	32,387	30,640
'27	2,827,719	20,339	19,496	88,138	64,920	32,963	31,957
'28	2,846,788	22,440	21,347	95,354	75,860	39,226	36,634
'29	2,863,132	22,581	23,023	99,488	82,719	42,415	40,304
'30	2,888,082	22,222	19,970	94,626	69,251	35,783	33,468
'31	2,901,039	19,983	21,567	88,253	75,274	38,404	36,870
'32	2,922,801	20,935	19,285	89,862	68,078	34,063	34,015
'33	2,959,141	23,029	18,067	100,309	63,947	32,637	31,310
'34	2,983,055	23,803	21,919	100,231	76,294	39,105	37,189
'35	3,025,439	22,533	16,107	98,144	55,738	28,495	27,243
'36	3,059,356	21,816	16,765	96,857	60,763	30,967	29,796
'37	3,076,184	21,153	20,982	94,616	75,611	38,621	36,990
'38	3,090,262	18,774	21,367	90,565	74,309	38,086	36,223
'39	3,106,459	20,963	21,469	91,363	72,988	36,913	36,075
'40	3,138,887	22,071	18,481	98,160	63,555	32,370	31,185
1841	3,173,160	22,519	17,269	95,734	61,279	31,186	30,093
'42	3,206,776	22,691	18,310	100,976	67,177	34,388	32,789
'43	3,236,632	23,167	19,295	99,154	79,115	34,932	34,183
'44	3,275,133	24,208	17,980	104,693	66,009	34,470	31,539
'45	3,316,536	24,009	17,059	103,660	62,074	32,102	29,972
'46	3,342,927	22,981	19,102	99,703	72,683	36,784	35,899
'47	3,362,072	28,858	21,749	99,179	79,405	40,149	39,256
'48	3,397,454	24,729	19,005	102,524	66,513	33,790	32,723
'49	3,441,286	26,891	18,175	112,304	67,842	34,885	32,957
'50	3,482,541	26,267	18,535	110,399	68,514	35,595	32,919
'51	3,517,759	25,750	19,733	111,065	72,506	37,578	34,928
'52	3,540,421	24,150	22,120	108,305	80,090	41,350	38,740
'53	3,562,543	25,596	22,411	111,407	84,047	42,786	41,261
'54	3,605,321	27,585	18,811	120,107	70,846	36,006	34,840
'55	3,639,332	27,253	20,765	115,072	77,734	38,946	38,788

TABLE A.—*Population of SWEDEN, &c.—Contd.*

Year.	Quality of Harvest.	Yearly Increase per Cent. of Population.	Inhabitants to One Marriage.	Marriages Dissolved by Death, to One Marriage Contracted.	Inhabitants to One Living Child Born.	Living Children Born to One Marriage Contracted.
1748	I	—	—	—	—	—
'49	II	+ 0·57	115	0·81	29·2	3·95
'50	IX	0·97	107	0·69	27·0	3·94
'51	VI	1·27	106	0·72	25·4	4·18
'52	VI	0·75	106	0·63	27·5	3·88
'53	IX	1·12	113	0·67	27·2	4·15
'54	VI	0·99	104	0·69	26·4	3·94
'55	VI	0·89	107	0·70	26·2	4·10
'56	I	0·72	116	0·82	27·3	4·25
'57	I	0·18	124	0·93	30·2	4·09
'58	VI	− 0·14	122	1·14	29·6	4·14
'59	IX	+ 0·50	101	0·78	29·2	3·45
'60	VI	0·87	100	0·73	27·4	3·66
'61	II	1·25	104	0·68	28·1	3·69
'62	O	0·71	110	0·86	28·1	3·92
'63	I	0·49	115	0·94	28·3	4·05
'64	I	0·73	113	0·85	28·5	3·95
'65	VI	0·55	122	0·97	29·6	4·10
'66	VI	0·85	119	0·82	29·3	4·09
'67	VI	0·80	119	0·91	28·0	4·28
1768	IX	0·47	117	0·79	29·5	3·98
'69	IX	0·42	122	0·81	29·9	4·07
'70	VI	0·77	122	0·85	30·0	4·06
'71	O	0·52	128	1·03	30·8	4·16
'72	I	− 0·79	147	1·65	34·6	4·24
'73	VI	− 2·61	130	1·78	39·5	3·29
'74	VI	+ 1·29	113	0·62	28·8	3·93
'75	I	1·15	105	0·69	27·9	3·77
'76	VI	1·06	110	0·71	30·2	3·65
'77	IX	0·78	109	0·72	30·1	3·64
'78	VI	0·78	110	0·67	28·6	3·85
'79	IX	0·79	115	0·67	27·1	4·24
'80	I	1·37	116	0·67	27·8	4·19
'81	I	0·69	127	0·86	29·8	4·28
'82	I	0·38	130	1·08	31·1	4·17
'83	I	0·12	125	0·94	33·0	3·79
'84	VI	0·08	134	0·97	31·7	4·22
'85	I	0·26	128	0·94	31·8	4·02
'86	VI	0·29	124	0·95	30·3	4·10
'87	IX	0·36	125	0·93	31·5	3·96
1788	VIII	0·37	126	0·89	29·2	4·30
'89	VI	− 0·37	125	1·07	30·9	4·04
'90	IX	− 0·26	119	1·00	32·4	3·69
'91	VIII	+ 0·95	91	0·69	30·1	3·01
'92	VI	1·51	98	0·64	26·9	3·65
'93	VIII	0·79	111	0·70	28·7	3·86
'94	VIII	1·25	121	0·77	29·3	4·13
'95	VIII	0·62	131	1·02	31·0	4·22
'96	VI	0·86	116	0·72	28·7	4·02
'97	VI	0·96	118	0·77	28·6	4·12
'98	I	0·92	120	0·78	29·5	4·06
'99	I	0·54	136	0·97	31·1	4·36
1800	I	− 0·41	134	1·12	34·9	3·86
'01	VI	+ 0·37	138	0·96	33·2	4·14

TABLE A.—*Population of SWEDEN, &c.—Contd.*

Year.	Quality of Harvest.	Yearly Increase per Cent. of Population.	Inhabitants to One Marriage.	Marriages Dissolved by Death, to One Marriage Contracted.	Inhabitants to One Living Child Born.	Living Children Born to One Marriage Contracted.
1802	VI	0·78	127	0·86	31·4	4·05
'03	VIII	0·74	122	0·83	31·8	3·83
'04	VI	0·68	124	0·89	31·3	3·96
'05	IV	0·80	119	0·80	31·4	3·79
'06	VI	0·05	125	0·87	32·5	3·83
'07	V	+ 0·25	122	0·89	32·0	3·80
'08	IV	− 0·65	123	1·12	32·9	3·74
'09	VIII	− 1·52	129	1·43	37·6	3·41
'10	VIII	− 0·18	92	0·79	30·2	3·06
'11	III	+ 0·79	93	0·74	28·0	3·31
'12	II	0·46	109	0·98	29·5	3·67
'13	V	0·37	128	0·96	33·4	3·84
'14	VII	0·74	132	0·86	31·8	4·14
'15	VIII	1·25	103	0·66	28·5	3·61
'16	II	1·31	107	0·63	28·1	3·80
'17	V	0·96	119	0·79	29·8	4·00
'18	III	0·99	118	0·80	29·4	4·00
'19	VII	0·60	122	0·93	30·2	4·05
'20	IX	0·89	118	0·81	30·2	3·90
'21	VII	1·01	113	0·72	28·1	4·02
1822	V	1·30	107	0·68	27·7	3·86
'23	VIII	1·61	110	0·67	26·9	4·09
'24	VIII	1·41	112	0·65	28·7	3·91
'25	VI	1·63	115	0·66	27·2	4·24
'26	II	1·22	123	0·77	28·5	4·31
'27	VIII	0·81	138	0·96	31·8	4·33
'28	VIII	0·67	126	0·95	29·8	4·25
'29	VI	0·57	126	1·02	28·6	4·40
'30	V	0·87	129	0·90	30·2	4·25
'31	IV	0·45	145	1·08	32·7	4·41
'32	VIII	0·75	139	0·92	32·3	4·29
'33	VI	1·24	127	0·78	29·1	4·35
'34	V	0·81	124	0·92	29·5	4·21
'35	VII	1·42	132	0·71	30·4	4·35
'36	VI	1·12	138	0·77	31·2	4·44
'37	IV	0·55	145	0·99	32·3	4·47
'38	VII	0·46	164	1·14	33·9	4·82
'39	VI	0·52	147	1·02	33·8	4·36
'40	VII	1·04	141	0·84	31·6	4·44
'41	II	1·09	139	0·77	32·8	4·25
1842	V	1·06	140	0·81	31·4	4·45
'43	IV	0·93	138	0·83	32·3	4·28
'44	V	1·19	134	0·74	30·9	4·32
'45	III	1·26	136	0·71	31·6	4·32
'46	V	0·80	144	0·83	33·3	4·34
'47	VI	0·57	116	0·75	33·7	3·43
'48	VII	1·05	136	0·77	32·8	4·14
'49	V	1·29	126	0·68	30·2	4·18
'50	VI	1·20	131	0·71	31·2	4·20
'51	V	1·01	135	0·77	31·3	4·31
'52	VII	0·64	145	0·92	32·5	4·48
'53	V	0·62	138	0·88	31·8	4·35
'54	VI	1·20	129	0·68	29·6	4·35
'55	VII	0·94	132	0·76	31·3	4·22

TABLE A.—*Population of SWEDEN, &c.—Contd.*

Year.	<i>Births of Males to 1,000 Births of Females.</i>	<i>Inhabitants to One Death.</i>	<i>Living Children Born to One Death.</i>	<i>Deaths of Females to One Death of Males.</i>	<i>Deaths from Small Pox, to 100 Deaths from all Causes.</i>	<i>Deaths from Typhus and Typhoid Fever to 100 Deaths from all Causes.</i>
1748 ...	—	—	—	—	—	—
'49	1,024	35·0	1·20	1·06	8·99	7·97
'50	1,036	36·7	1·30	1·03	12·97	7·52
'51	1,036	37·6	1·47	1·03	11·82	7·24
'52	1,043	36·1	1·31	1·01	20·82	5·78
'53	1,047	40·9	1·50	1·01	18·22	7·12
'54	1,034	37·4	1·41	1·01	14·10	7·21
'55	1,047	36·0	1·37	1·04	9·21	7·07
'56	1,034	35·6	1·31	1·01	15·09	8·30
'57	1,058	33·4	1·10	1·04	18·34	9·86
'58	1,051	30·9	1·04	1·06	11·73	9·29
'59	1,058	37·9	1·30	1·02	7·95	11·01
'60	1,030	40·2	1·46	1·03	7·64	11·42
'61	1,051	38·5	1·37	1·02	11·66	9·67
'62	1,045	32·1	1·14	1·03	15·64	10·03
'63	1,048	30·1	1·06	1·01	18·17	13·00
'64	1,052	36·3	1·27	1·01	8·55	13·77
'65	1,054	35·8	1·20	0·99	8·61	11·21
'66	1,041	39·5	1·34	1·01	8·23	10·95
'67	1,044	38·6	1·38	0·99	8·17	10·00
1768 ...	1,048	36·5	1·23	1·01	19·45	7·41
'69	1,036	36·5	1·22	1·03	18·56	8·18
'70	1,044	38·6	1·26	1·03	9·82	8·58
'71	1,023	35·7	1·16	1·01	7·67	10·53
'72 ...	1,045	26·7	0·77	0·96	7·12	16·82
'73	1,037	19·3	0·48	1·03	11·53	19·15
'74	1,036	44·4	1·54	1·06	4·64	11·12
'75	1,037	40·0	1·43	1·03	2·55	9·85
'76	1,049	44·2	1·46	1·02	3·29	11·72
'77	1,041	40·0	1·32	1·02	3·80	8·69
'78	1,043	37·4	1·30	0·99	12·00	7·88
'79	1,056	34·9	1·28	1·03	25·45	6·67
'80	1,043	45·7	1·64	1·00	7·37	7·42
'81	1,049	39·0	1·31	1·00	2·73	7·61
'82	1,049	36·6	1·17	0·97	4·26	8·66
'83	1,043	35·5	1·07	0·96	6·50	9·07
'84	1,021	33·6	1·06	0·97	19·52	10·18
'85	1,038	35·3	1·11	1·01	8·35	11·16
'86	1,045	38·4	1·27	0·99	1·20	12·49
'87 ...	1,053	41·5	1·31	0·98	3·41	12·50
1788 ...	1,059	37·7	1·29	0·99	9·53	10·22
'89	1,048	31·2	1·01	0·85	9·72	20·44
'90	1,047	34·0	1·05	0·96	9·26	17·94
'91 ...	1,051	38·6	1·28	1·02	5·54	14·76
'92	1,058	41·1	1·53	0·98	3·66	7·98
'93	1,036	40·6	1·41	0·99	3·87	8·33
'94 ...	1,037	41·9	1·43	0·99	7·42	8·38
'95	1,052	35·6	1·14	1·01	10·59	7·89
'96	1,038	40·4	1·41	0·98	7·97	6·79
'97	1,050	41·8	1·46	0·99	3·15	7·52
'98	1,054	43·1	1·46	0·98	2·52	8·79
'99	1,056	39·6	1·27	0·97	6·34	8·32
1800 ...	1,060	31·9	0·91	1·01	16·27	7·98
'01 ...	1,054	38·2	1·15	1·01	9·88	9·12

TABLE A.—*Population of SWEDEN, &c.—Contd.*

Year.	<i>Births of Males to 1,000 Births of Females.</i>	<i>Inhabitants to One Death.</i>	<i>Living Children Born to One Death.</i>	<i>Deaths of Females to One Death of Males.</i>	<i>Deaths from Small Pox, to 100 Deaths from all Causes.</i>	<i>Deaths from Typhus and Typhoid Fever to 100 Deaths from all Causes.</i>
1802	1,046	42.0	1.33	0.99	2.73	10.06
'03	1,048	41.9	1.32	0.99	2.59	11.07
'04	1,043	40.1	1.28	0.98	2.45	11.51
'05	1,046	42.5	1.35	1.01	1.92	10.63
'06	1,027	36.8	1.13	1.01	2.25	10.92
'07	1,062	38.9	1.21	1.02	3.41	12.94
'08	1,051	29.6	0.89	0.96	2.20	15.22
'09	1,030	25.8	0.67	0.96	2.57	22.63
'10	1,052	31.5	1.04	0.98	1.09	12.16
'11	1,041	34.3	1.22	0.96	1.01	10.73
'12	1,043	32.8	1.11	0.97	0.55	11.02
'13	1,048	36.3	1.09	0.96	0.82	9.45
'14	1,039	39.6	1.24	0.99	0.50	9.11
'15	1,046	42.1	1.47	1.00	0.81	9.21
'16	1,044	43.8	1.56	0.96	1.23	8.16
'17	1,040	41.0	1.37	1.00	0.40	9.51
'18	1,053	40.8	1.39	0.96	0.49	10.30
'19	1,051	36.4	1.20	0.99	0.23	10.32
'20	1,053	40.7	1.35	0.99	0.23	9.34
'21	1,050	38.9	1.38	0.98	0.06	8.81
1822	1,047	43.9	1.58	0.95	0.02	8.65
'23	1,044	47.2	1.75	0.95	0.07	7.43
'24	1,044	47.8	1.66	0.93	1.10	6.94
'25	1,038	48.3	1.78	0.93	2.20	7.01
'26	1,044	43.9	1.54	0.95	0.99	8.40
'27	1,045	43.2	1.36	0.97	0.92	12.12
'28	1,041	37.2	1.25	0.93	0.34	12.98
'29	1,045	34.4	1.20	0.95	0.06	11.20
'30	1,050	41.3	1.36	0.93	0.15	10.62
'31	1,058	38.3	1.17	0.96	0.81	—
'32	1,050	42.6	1.32	1.00	0.91	—
'33	1,047	45.7	1.57	0.96	1.79	—
'34	1,048	38.8	1.31	0.95	1.37	—
'35	1,046	53.5	1.76	0.95	0.80	—
'36	1,049	49.8	1.59	0.96	0.22	—
'37	1,040	40.4	1.25	0.96	0.48	—
'38	1,038	41.4	1.22	0.95	2.43	—
'39	1,045	42.3	1.25	0.98	2.65	—
'40	1,050	48.9	1.54	0.96	1.02	—
'41	1,040	51.2	1.56	0.96	0.39	—
1842	1,040	47.2	1.50	0.95	0.09	—
'43	1,050	46.4	1.43	0.98	0.01	—
'44	1,042	49.0	1.60	0.91	0.01	—
'45	1,029	52.7	1.67	0.93	0.01	—
'46	1,058	45.6	1.37	0.98	0.00	—
'47	1,054	42.1	1.25	0.98	0.02	—
'48	1,047	50.5	1.54	0.97	0.11	—
'49	1,040	50.1	1.65	0.94	0.50	—
'50	1,052	50.2	1.61	0.92	2.01	—
'51	1,050	48.0	1.53	0.93	3.43	—
'52	1,057	43.9	1.35	0.93	1.91	—
'53	1,044	42.1	1.32	0.96	0.33	—
'54	1,043	50.3	1.69	0.97	0.29	—
'55	1,058	46.5	1.48	1.00	0.05	—

TABLE B.—*The proportion that DIED in each Year of LIFE (or Co-efficients of Mortality), at Ten separate Epochs, between the Years 1755 and 1855.*PART I.—*For MALES separately.*

Age.	Sweden and Finland.						Sweden alone.			
	1755 to 1757.	1758 to 1760.	1761 to 1763.	1755 to 1775.	1776 to 1795.	1801 to 1805.	1816 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.
0	0·2353	0·2091	0·2434	0·2153	0·2124	0·2020	0·1797	0·1662	0·1643	0·1597
1	0·0700	0·0508	0·0751	0·0642	0·0689	0·0590	0·0479	0·0369	0·0403	0·0420
2	0·0477	0·0401	0·0537	0·0481	0·0423	0·0347	0·0283	0·0267	0·0272	0·0304
3	0·0365	0·0290	0·0373	0·0340	0·0318	0·0244	0·0182	0·0175	0·0195	0·0224
4	0·0233	0·0180	0·0284	0·0231	0·0243	0·0188	0·0123	0·0129	0·0140	0·0166
5	0·0198	0·0156	0·0215	0·0193	0·0227	0·0165	0·0109	0·0108	0·0117	0·0133
6	0·0163	0·0140	0·0183	0·0162	0·0172	0·0128	0·0089	0·0092	0·0097	0·0108
7	0·0129	0·0126	0·0161	0·0140	0·0128	0·0102	0·0076	0·0078	0·0083	0·0090
8	0·0101	0·0114	0·0145	0·0124	0·0095	0·0087	0·0066	0·0065	0·0068	0·0077
9	0·0085	0·0095	0·0120	0·0110	0·0080	0·0074	0·0056	0·0053	0·0056	0·0064
10	0·0074	0·0076	0·0095	0·0091	0·0074	0·0060	0·0051	0·0045	0·0048	0·0052
11	0·0066	0·0064	0·0080	0·0081	0·0070	0·0056	0·0047	0·0044	0·0044	0·0051
12	0·0065	0·0060	0·0070	0·0075	0·0068	0·0053	0·0044	0·0043	0·0045	0·0051
13	0·0063	0·0060	0·0067	0·0069	0·0065	0·0050	0·0044	0·0045	0·0045	0·0051
14	0·0062	0·0059	0·0063	0·0064	0·0064	0·0050	0·0048	0·0045	0·0046	0·0051
15	0·0061	0·0061	0·0064	0·0066	0·0064	0·0054	0·0049	0·0045	0·0047	0·0052
16	0·0063	0·0064	0·0066	0·0067	0·0064	0·0054	0·0051	0·0047	0·0047	0·0052
17	0·0065	0·0070	0·0068	0·0070	0·0066	0·0056	0·0056	0·0047	0·0049	0·0054
18	0·0067	0·0073	0·0071	0·0074	0·0070	0·0056	0·0057	0·0048	0·0050	0·0055
19	0·0075	0·0079	0·0077	0·0080	0·0074	0·0064	0·0065	0·0050	0·0050	0·0057
20	0·0086	0·0088	0·0085	0·0088	0·0081	0·0071	0·0067	0·0062	0·0059	0·0066
21	0·0087	0·0094	0·0091	0·0092	0·0086	0·0076	0·0073	0·0069	0·0066	0·0071
22	0·0089	0·0096	0·0092	0·0095	0·0090	0·0078	0·0079	0·0071	0·0069	0·0075
23	0·0090	0·0099	0·0095	0·0098	0·0094	0·0079	0·0081	0·0073	0·0072	0·0078
24	0·0091	0·0100	0·0096	0·0100	0·0097	0·0080	0·0086	0·0077	0·0076	0·0080
25	0·0092	0·0103	0·0097	0·0101	0·0099	0·0080	0·0088	0·0077	0·0077	0·0081
26	0·0095	0·0104	0·0100	0·0102	0·0102	0·0081	0·0094	0·0078	0·0079	0·0085
27	0·0096	0·0107	0·0101	0·0105	0·0105	0·0082	0·0098	0·0080	0·0081	0·0087
28	0·0098	0·0111	0·0104	0·0108	0·0108	0·0082	0·0102	0·0082	0·0081	0·0091
29	0·0101	0·0114	0·0107	0·0111	0·0111	0·0085	0·0105	0·0083	0·0085	0·0093
30	0·0106	0·0116	0·0110	0·0113	0·0114	0·0085	0·0109	0·0088	0·0089	0·0096
31	0·0109	0·0119	0·0111	0·0114	0·0115	0·0088	0·0113	0·0094	0·0091	0·0100
32	0·0113	0·0120	0·0115	0·0115	0·0117	0·0090	0·0116	0·0099	0·0095	0·0104
33	0·0114	0·0124	0·0118	0·0119	0·0118	0·0091	0·0121	0·0104	0·0100	0·0109
34	0·0117	0·0125	0·0122	0·0120	0·0120	0·0095	0·0124	0·0108	0·0105	0·0113
35	0·0119	0·0129	0·0126	0·0124	0·0121	0·0098	0·0127	0·0112	0·0113	0·0116
36	0·0122	0·0132	0·0129	0·0127	0·0123	0·0101	0·0131	0·0119	0·0119	0·0121
37	0·0124	0·0136	0·0133	0·0129	0·0124	0·0106	0·0136	0·0123	0·0126	0·0126
38	0·0128	0·0144	0·0142	0·0135	0·0126	0·0110	0·0140	0·0128	0·0131	0·0133
39	0·0131	0·0155	0·0151	0·0148	0·0133	0·0119	0·0147	0·0135	0·0138	0·0142
40	0·0142	0·0170	0·0163	0·0161	0·0150	0·0126	0·0151	0·0140	0·0143	0·0149
41	0·0149	0·0185	0·0173	0·0168	0·0157	0·0132	0·0159	0·0146	0·0149	0·0157
42	0·0158	0·0191	0·0183	0·0173	0·0159	0·0135	0·0168	0·0153	0·0155	0·0165
43	0·0165	0·0199	0·0189	0·0181	0·0162	0·0141	0·0174	0·0158	0·0163	0·0171
44	0·0172	0·0205	0·0195	0·0186	0·0167	0·0147	0·0185	0·0166	0·0169	0·0178
45	0·0180	0·0210	0·0199	0·0190	0·0179	0·0153	0·0191	0·0170	0·0176	0·0183
46	0·0188	0·0216	0·0206	0·0196	0·0186	0·0162	0·0203	0·0175	0·0185	0·0191
47	0·0197	0·0224	0·0210	0·0202	0·0190	0·0173	0·0213	0·0182	0·0194	0·0198
48	0·0206	0·0234	0·0217	0·0212	0·0194	0·0182	0·0222	0·0190	0·0202	0·0207

TABLE B.—*The proportion that DIED in each Year of LIFE—Contd.*PART I.—*For MALES—Contd.*

Age.	Sweden and Finland.						Sweden alone.			
	1755 to 1757.	1758 to 1760.	1761 to 1763.	1755 to 1775.	1776 to 1795.	1801 to 1805.	1816 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.
49	0·0213	0·0242	0·0225	0·0224	0·0205	0·0203	0·0234	0·0197	0·0214	0·0217
50	0·0223	0·0256	0·0236	0·0237	0·0217	0·0227	0·0244	0·0214	0·0227	0·0231
51	0·0231	0·0268	0·0247	0·0248	0·0229	0·0243	0·0259	0·0227	0·0241	0·0243
52	0·0242	0·0283	0·0257	0·0263	0·0237	0·0252	0·0268	0·0240	0·0251	0·0256
53	0·0250	0·0297	0·0270	0·0273	0·0249	0·0258	0·0283	0·0253	0·0264	0·0267
54	0·0260	0·0309	0·0283	0·0287	0·0258	0·0265	0·0296	0·0264	0·0279	0·0281
55	0·0267	0·0325	0·0295	0·0298	0·0267	0·0275	0·0310	0·0274	0·0289	0·0295
56	0·0283	0·0339	0·0311	0·0314	0·0283	0·0298	0·0325	0·0288	0·0305	0·0309
57	0·0298	0·0357	0·0328	0·0327	0·0298	0·0323	0·0339	0·0302	0·0319	0·0326
58	0·0313	0·0370	0·0349	0·0345	0·0310	0·0348	0·0357	0·0319	0·0333	0·0343
59	0·0334	0·0388	0·0373	0·0368	0·0323	0·0369	0·0379	0·0337	0·0349	0·0363
60	0·0363	0·0403	0·0396	0·0389	0·0357	0·0400	0·0400	0·0357	0·0368	0·0383
61	0·0387	0·0424	0·0420	0·0416	0·0398	0·0420	0·0426	0·0381	0·0387	0·0407
62	0·0406	0·0443	0·0447	0·0438	0·0443	0·0439	0·0455	0·0405	0·0406	0·0430
63	0·0424	0·0463	0·0472	0·0466	0·0475	0·0445	0·0480	0·0438	0·0433	0·0456
64	0·0447	0·0490	0·0500	0·0497	0·0498	0·0491	0·0515	0·0483	0·0472	0·0488
65	0·0467	0·0515	0·0531	0·0532	0·0544	0·0527	0·0551	0·0531	0·0557	0·0524
66	0·0490	0·0543	0·0566	0·0567	0·0602	0·0552	0·0595	0·0582	0·0626	0·0573
67	0·0520	0·0580	0·0606	0·0606	0·0654	0·0605	0·0637	0·0625	0·0676	0·0623
68	0·0549	0·0615	0·0639	0·0651	0·0700	0·0657	0·0680	0·0659	0·0717	0·0674
69	0·0591	0·0661	0·0676	0·0707	0·0742	0·0746	0·0740	0·0697	0·0763	0·0727
70	0·0657	0·0720	0·0719	0·0767	0·0784	0·0851	0·0804	0·0745	0·0811	0·0789
71	0·0733	0·0796	0·0767	0·0831	0·0832	0·0903	0·0886	0·0800	0·0862	0·0867
72	0·0810	0·0872	0·0823	0·0899	0·0894	0·0962	0·0966	0·0859	0·0926	0·0955
73	0·0889	0·0963	0·0888	0·0972	0·0952	0·1044	0·1041	0·0933	0·1008	0·1050
74	0·0983	0·1065	0·0947	0·1050	0·1027	0·1151	0·1115	0·1023	0·1099	0·1151
75	0·1082	0·1144	0·1005	0·1093	0·1099	0·1250	0·1192	0·1132	0·1195	0·1243
76	0·1165	0·1194	0·1083	0·1127	0·1172	0·1312	0·1273	0·1227	0·1285	0·1315
77	0·1231	0·1245	0·1151	0·1195	0·1246	0·1387	0·1343	0·1334	0·1371	0·1383
78	0·1329	0·1310	0·1257	0·1257	0·1329	0·1468	0·1444	0·1464	0·1480	0·1466
79	0·1404	0·1394	0·1405	0·1356	0·1486	0·1583	0·1563	0·1589	0·1610	0·1570
80	0·1483	0·1544	0·1538	0·1493	0·1564	0·1754	0·1685	0·1739	0·1751	0·1705
81	0·1605	0·1693	0·1705	0·1667	0·1638	0·1952	0·1849	0·1906	0·1959	0·1822
82	0·1772	0·1903	0·1890	0·1867	0·1701	0·2125	0·2022	0·2130	0·2234	0·1943
83	0·1870	0·2185	0·2230	0·2131	0·1801	0·2145	0·2226	0·2422	0·2516	0·2090
84	0·1916	0·2458	0·2609	0·2375	0·2008	0·2335	0·2467	0·2707	0·2882	0·2276
85	0·2112	0·2753	0·3000	0·2568	0·2133	0·2356	0·2690	0·2990	0·3006	0·2579
86	0·2295	0·2791	0·3109	0·2574	0·2229	0·2556	0·2880	0·3088	0·3070	0·2837
87	0·2411	0·2796	0·2927	0·2673	0·2248	0·2728	0·2921	0·2979	0·3291	0·3069
88	0·2617	0·2537	0·2759	0·2568	0·2300	0·2838	0·3016	0·3030	0·3585	0·3429
89	0·2911	0·2200	0·2381	0·2364	0·2405	0·2830	0·3182	0·3696	0·4118	0·3913
90	0·3036	0·2308	0·2500	0·2381	0·2333	0·2895	0·3333	0·4483	0·4000	0·4286
91	0·3333	0·2333	0·2500	0·2500	0·2609	0·2963	0·3500	0·3125	0·3333	0·3125
92	0·3462	0·2609	0·2778	0·2500	0·2647	0·3158	0·3846	0·2727	0·2500	0·3636
93	0·3529	0·2941	0·3077	0·2778	0·3200	0·3846	0·3750	0·2500	0·1667	0·1429
94	0·3636	0·2500	0·3333	0·3077	0·3529	0·3750	0·4000	0·3333	0·2000	0·1667
95	0·2857	0·3333	0·3333	0·3333	0·3636	0·4000	0·6667	0·2500	0·5000	0·4000
96	0·4000	0·3333	0·5000	0·3333	0·4286	0·3333	1·0000	0·3333	0·5000	0·3333
97	0·3333	0·5000	0·5000	0·5000	0·5000	0·5000	—	0·5000	1·0000	0·5000
98	0·5000	0·5000	1·0000	0·5000	0·5000	1·0000	—	1·0000	—	1·0000
99	1·0000	1·0000	—	1·0000	1·0000	—	—	—	—	—

TABLE B.—*The proportion that DIED in each Year of LIFE—Contd.*PART II.—*For FEMALES separately.*

Age.	Sweden and Finland.						Sweden alone.			
	1755 to 1757.	1758 to 1760.	1761 to 1763.	1755 to 1775.	1776 to 1795.	1801 to 1805.	1816 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.
0	0·2174	0·1840	0·2243	0·1939	0·1901	0·1750	0·1549	0·1409	0·1402	0·1375
1	0·0698	0·0475	0·0691	0·0630	0·0673	0·0528	0·0432	0·0341	0·0376	0·0388
2	0·0505	0·0374	0·0564	0·0459	0·0402	0·0319	0·0262	0·0217	0·0259	0·0274
3	0·0334	0·0271	0·0412	0·0322	0·0309	0·0235	0·0171	0·0148	0·0185	0·0203
4	0·0217	0·0173	0·0243	0·0228	0·0231	0·0173	0·0129	0·0119	0·0133	0·0160
5	0·0170	0·0150	0·0207	0·0175	0·0210	0·0148	0·0105	0·0090	0·0108	0·0127
6	0·0145	0·0128	0·0178	0·0152	0·0160	0·0116	0·0081	0·0077	0·0091	0·0099
7	0·0125	0·0111	0·0158	0·0133	0·0113	0·0094	0·0071	0·0067	0·0077	0·0084
8	0·0107	0·0095	0·0133	0·0118	0·0087	0·0076	0·0060	0·0058	0·0063	0·0072
9	0·0091	0·0078	0·0109	0·0100	0·0077	0·0066	0·0054	0·0051	0·0050	0·0060
10	0·0080	0·0068	0·0085	0·0080	0·0071	0·0058	0·0052	0·0046	0·0047	0·0050
11	0·0067	0·0060	0·0070	0·0070	0·0066	0·0051	0·0046	0·0039	0·0044	0·0046
12	0·0061	0·0057	0·0064	0·0064	0·0063	0·0046	0·0041	0·0038	0·0043	0·0045
13	0·0058	0·0056	0·0059	0·0063	0·0060	0·0045	0·0043	0·0040	0·0045	0·0046
14	0·0057	0·0055	0·0058	0·0061	0·0059	0·0047	0·0046	0·0043	0·0045	0·0048
15	0·0057	0·0058	0·0058	0·0063	0·0059	0·0052	0·0046	0·0044	0·0045	0·0048
16	0·0058	0·0061	0·0060	0·0065	0·0059	0·0052	0·0049	0·0047	0·0047	0·0048
17	0·0060	0·0063	0·0062	0·0068	0·0061	0·0055	0·0051	0·0049	0·0047	0·0049
18	0·0060	0·0065	0·0064	0·0070	0·0063	0·0056	0·0054	0·0050	0·0047	0·0049
19	0·0062	0·0069	0·0067	0·0070	0·0066	0·0060	0·0057	0·0052	0·0047	0·0051
20	0·0064	0·0069	0·0069	0·0072	0·0068	0·0061	0·0060	0·0053	0·0050	0·0052
21	0·0065	0·0071	0·0069	0·0073	0·0070	0·0063	0·0060	0·0054	0·0055	0·0055
22	0·0067	0·0073	0·0072	0·0075	0·0074	0·0065	0·0064	0·0057	0·0058	0·0057
23	0·0069	0·0076	0·0074	0·0077	0·0076	0·0067	0·0068	0·0058	0·0058	0·0059
24	0·0074	0·0079	0·0076	0·0081	0·0078	0·0067	0·0070	0·0060	0·0060	0·0064
25	0·0075	0·0085	0·0079	0·0084	0·0084	0·0071	0·0074	0·0061	0·0060	0·0064
26	0·0080	0·0089	0·0081	0·0088	0·0087	0·0073	0·0076	0·0064	0·0061	0·0066
27	0·0084	0·0095	0·0084	0·0092	0·0089	0·0075	0·0081	0·0064	0·0062	0·0069
28	0·0090	0·0101	0·0089	0·0099	0·0092	0·0076	0·0083	0·0066	0·0064	0·0073
29	0·0097	0·0107	0·0093	0·0101	0·0096	0·0080	0·0085	0·0069	0·0066	0·0076
30	0·0097	0·0110	0·0096	0·0106	0·0103	0·0082	0·0087	0·0071	0·0073	0·0078
31	0·0100	0·0113	0·0099	0·0109	0·0106	0·0084	0·0091	0·0075	0·0078	0·0082
32	0·0103	0·0116	0·0104	0·0110	0·0107	0·0088	0·0094	0·0077	0·0080	0·0086
33	0·0106	0·0119	0·0109	0·0113	0·0108	0·0093	0·0095	0·0080	0·0083	0·0088
34	0·0109	0·0122	0·0114	0·0117	0·0109	0·0095	0·0099	0·0083	0·0087	0·0093
35	0·0111	0·0125	0·0118	0·0120	0·0112	0·0096	0·0101	0·0086	0·0089	0·0097
36	0·0114	0·0127	0·0121	0·0123	0·0114	0·0101	0·0104	0·0092	0·0093	0·0100
37	0·0117	0·0132	0·0125	0·0127	0·0115	0·0102	0·0108	0·0096	0·0096	0·0104
38	0·0118	0·0136	0·0131	0·0129	0·0118	0·0106	0·0113	0·0098	0·0100	0·0108
39	0·0122	0·0140	0·0135	0·0132	0·0124	0·0109	0·0114	0·0102	0·0104	0·0111
40	0·0126	0·0143	0·0139	0·0136	0·0137	0·0114	0·0119	0·0105	0·0108	0·0116
41	0·0129	0·0150	0·0143	0·0140	0·0141	0·0125	0·0122	0·0109	0·0111	0·0119
42	0·0133	0·0156	0·0147	0·0144	0·0143	0·0130	0·0127	0·0112	0·0114	0·0124
43	0·0135	0·0160	0·0149	0·0148	0·0143	0·0132	0·0128	0·0116	0·0117	0·0125
44	0·0139	0·0167	0·0156	0·0155	0·0145	0·0134	0·0137	0·0118	0·0120	0·0128
45	0·0143	0·0172	0·0159	0·0160	0·0148	0·0136	0·0141	0·0119	0·0122	0·0130
46	0·0148	0·0177	0·0166	0·0164	0·0148	0·0137	0·0147	0·0122	0·0123	0·0132
47	0·0150	0·0182	0·0169	0·0172	0·0150	0·0139	0·0151	0·0126	0·0125	0·0135
48	0·0154	0·0188	0·0174	0·0182	0·0154	0·0139	0·0157	0·0129	0·0126	0·0137
49	0·0159	0·0194	0·0180	0·0190	0·0161	0·0155	0·0161	0·0134	0·0128	0·0143
50	0·0162	0·0202	0·0186	0·0198	0·0174	0·0175	0·0170	0·0145	0·0142	0·0154

TABLE B.—*The proportion that DIED in each Year of LIFE—Contd.*PART II.—*For FEMALES—Contd.*

Age.	Sweden and Finland.						Sweden alone.			
	1755 to 1757.	1758 to 1760.	1761 to 1763.	1755 to 1775.	1776 to 1795.	1801 to 1805.	1816 to 1840.	1841 to 1845.	1846 to 1850.	1851 to 1855.
51	0·0167	0·0211	0·0192	0·0205	0·0181	0·0188	0·0179	0·0154	0·0161	0·0168
52	0·0172	0·0221	0·0199	0·0212	0·0187	0·0192	0·0188	0·0162	0·0182	0·0181
53	0·0183	0·0233	0·0205	0·0219	0·0196	0·0200	0·0200	0·0172	0·0193	0·0190
54	0·0194	0·0243	0·0215	0·0226	0·0202	0·0209	0·0212	0·0183	0·0205	0·0204
55	0·0208	0·0250	0·0223	0·0237	0·0212	0·0225	0·0225	0·0194	0·0211	0·0214
56	0·0224	0·0259	0·0231	0·0246	0·0230	0·0242	0·0239	0·0208	0·0222	0·0228
57	0·0237	0·0268	0·0242	0·0257	0·0243	0·0258	0·0259	0·0225	0·0233	0·0241
58	0·0251	0·0281	0·0258	0·0270	0·0258	0·0274	0·0273	0·0242	0·0245	0·0256
59	0·0275	0·0304	0·0277	0·0289	0·0273	0·0295	0·0290	0·0261	0·0256	0·0277
60	0·0310	0·0337	0·0307	0·0307	0·0310	0·0328	0·0315	0·0277	0·0274	0·0301
61	0·0341	0·0370	0·0347	0·0330	0·0345	0·0358	0·0341	0·0298	0·0295	0·0329
62	0·0359	0·0397	0·0380	0·0357	0·0376	0·0383	0·0371	0·0321	0·0323	0·0355
63	0·0379	0·0423	0·0406	0·0384	0·0411	0·0407	0·0402	0·0348	0·0366	0·0381
64	0·0401	0·0452	0·0431	0·0414	0·0442	0·0436	0·0433	0·0378	0·0410	0·0415
65	0·0425	0·0481	0·0458	0·0446	0·0480	0·0469	0·0467	0·0416	0·0463	0·0458
66	0·0448	0·0516	0·0489	0·0486	0·0519	0·0499	0·0506	0·0458	0·0507	0·0504
67	0·0476	0·0556	0·0522	0·0536	0·0572	0·0536	0·0542	0·0505	0·0552	0·0552
68	0·0508	0·0602	0·0565	0·0583	0·0623	0·0581	0·0594	0·0550	0·0597	0·0598
69	0·0557	0·0654	0·0618	0·0642	0·0678	0·0637	0·0650	0·0598	0·0641	0·0643
70	0·0622	0·0714	0·0674	0·0706	0·0727	0·0718	0·0707	0·0659	0·0692	0·0709
71	0·0698	0·0790	0·0734	0·0775	0·0800	0·0815	0·0773	0·0716	0·0751	0·0779
72	0·0771	0·0875	0·0810	0·0857	0·0881	0·0882	0·0838	0·0779	0·0820	0·0849
73	0·0841	0·0965	0·0894	0·0944	0·0941	0·0979	0·0915	0·0841	0·0889	0·0919
74	0·0912	0·1061	0·0989	0·1035	0·1012	0·1061	0·0991	0·0904	0·0961	0·0980
75	0·0976	0·1141	0·1073	0·1093	0·1065	0·1146	0·1057	0·0989	0·1042	0·1069
76	0·1036	0·1167	0·1123	0·1116	0·1132	0·1194	0·1134	0·1087	0·1127	0·1146
77	0·1105	0·1223	0·1175	0·1159	9·1200	0·1243	0·1210	0·1207	0·1215	0·1243
78	0·1176	0·1249	0·1230	0·1224	0·1254	0·1400	0·1280	0·1344	0·1321	0·1336
79	0·1247	0·1338	0·1300	0·1320	0·1309	0·1524	0·1367	0·1495	0·1459	0·1455
80	0·1339	0·1485	0·1450	0·1449	0·1363	0·1703	0·1490	0·1614	0·1614	0·1556
81	0·1489	0·1623	0·1626	0·1628	0·1528	0·1839	0·1614	0·1776	0·1775	0·1642
82	0·1667	0·1814	0·1860	0·1824	0·1725	0·1932	0·1778	0·1852	0·1945	0·1773
83	0·1920	0·2065	0·2157	0·2083	0·1872	0·2170	0·1964	0·2034	0·2113	0·1922
84	0·2178	0·2317	0·2460	0·2415	0·2012	0·2229	0·2173	0·2253	0·2344	0·2115
85	9·2247	0·2562	0·2489	0·2571	0·2080	0·2295	0·2397	0·2299	0·2531	0·2287
86	0·2245	0·2611	0·2514	0·2527	0·2093	0·2418	0·2656	0·2410	0·2678	0·2451
87	0·2316	0·2481	0·2519	0·2574	0·2105	0·2609	0·2712	0·2559	0·3029	0·2670
88	0·2397	0·2400	0·2551	0·2376	0·2117	0·2788	0·2791	0·2866	0·3443	0·3000
89	0·2523	0·2237	0·2603	0·2338	0·2202	0·2911	0·2903	0·3482	0·4000	0·3367
90	0·2651	0·2373	0·2407	0·2203	0·2235	0·3051	0·3030	0·3699	0·3750	0·4000
91	0·2787	0·2222	0·2439	0·2174	0·2424	0·3415	0·3043	0·2826	0·2667	0·2821
92	0·2955	0·2286	0·2581	0·2222	0·2600	0·4074	0·3438	0·2727	0·3182	0·2143
93	0·3226	0·2593	0·3043	0·2500	0·2703	0·4375	0·3810	0·2083	0·2000	0·1818
94	0·3333	0·2500	0·3125	0·2857	0·2963	0·4444	0·3846	0·2105	0·2500	0·2222
95	0·3571	0·2667	0·2727	0·3333	0·3684	0·4000	0·3750	0·2667	0·3333	0·2857
96	0·3333	0·2727	0·2500	0·3000	0·5000	0·3333	0·6000	0·1818	0·3333	0·3000
97	0·3333	0·2500	0·3333	0·2857	0·5000	0·5000	0·5000	0·2222	0·2500	0·2857
98	0·2500	0·3333	0·2500	0·4000	0·6667	1·0000	1·0000	0·2857	0·3333	0·2000
99	0·3333	0·2500	0·3333	0·3333	1·0000	—	—	0·2000	0·5000	0·2500
100	0·5000	0·3333	0·5000	0·5000	—	—	—	0·5117	1·0000	0·3333
101	1·0000	0·5000	1·0000	1·0000	—	—	—	0·5000	—	0·5000
102	—	1·0000	—	—	—	—	—	1·0000	—	1·0000

TABLE C.—LIFE TABLE for SWEDEN, 1841-55.

PART I.—*Male Life.*

Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.	Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.
0.....	10,000	1,634	41·28	0·1634	50.....	4,768	106	18·02	0·0222
1.....	8,366	332	48·29	0·0397	51.....	4,662	111	17·42	0·0238
2.....	8,034	226	49·27	0·0281	52.....	4,551	113	16·83	0·0248
3.....	7,808	155	49·68	0·0199	53.....	4,438	116	16·25	0·0261
4.....	7,653	111	49·68	0·0145	54.....	4,322	119	15·67	0·0275
5.....	7,542	90	49·40	0·0119	55.....	4,203	120	15·10	0·0286
6.....	7,452	73	48·99	0·0098	56.....	4,083	123	14·53	0·0301
7.....	7,379	62	48·47	0·0084	57.....	3,960	125	13·97	0·0316
8.....	7,317	51	47·88	0·0070	58.....	3,835	127	13·41	0·0331
9.....	7,266	42	47·21	0·0058	59.....	3,708	130	12·85	0·0351
10.....	7,224	35	46·48	0·0048	60.....	3,578	132	12·31	0·0369
11.....	7,189	34	45·70	0·0047	61.....	3,446	135	11·75	0·0392
12.....	7,155	33	44·92	0·0046	62.....	3,311	137	11·21	0·0414
13.....	7,122	33	44·13	0·0046	63.....	3,174	140	10·67	0·0441
14.....	7,089	34	43·33	0·0048	64.....	3,034	146	10·14	0·0481
15.....	7,055	34	42·53	0·0048	65.....	2,888	155	9·63	0·0537
16.....	7,021	34	41·74	0·0048	66.....	2,733	163	9·14	0·0596
17.....	6,987	35	40·94	0·0050	67.....	2,570	164	8·69	0·0638
18.....	6,952	35	40·14	0·0050	68.....	2,406	165	8·25	0·0686
19.....	6,917	36	39·34	0·0052	69.....	2,241	163	7·82	0·0727
20.....	6,881	43	38·55	0·0062	70.....	2,078	163	7·40	0·0784
21.....	6,838	47	37·79	0·0069	71.....	1,915	161	6·98	0·0841
22.....	6,791	49	37·04	0·0072	72.....	1,754	160	6·58	0·0912
23.....	6,742	50	36·31	0·0074	73.....	1,594	159	6·19	0·0997
24.....	6,692	52	35·58	0·0078	74.....	1,435	157	5·82	0·1094
25.....	6,640	52	34·85	0·0078	75.....	1,278	152	5·47	0·1189
26.....	6,588	53	34·12	0·0080	76.....	1,126	143	5·14	0·1270
27.....	6,535	54	33·40	0·0083	77.....	983	134	4·82	0·1363
28.....	6,481	55	32·67	0·0085	78.....	849	125	4·50	0·1472
29.....	6,426	56	31·94	0·0087	79.....	724	115	4·19	0·1588
30.....	6,370	58	31·22	0·0091	80.....	609	106	3·88	0·1741
31.....	6,312	60	30·50	0·0095	81.....	503	95	3·60	0·1889
32.....	6,252	62	29·79	0·0099	82.....	408	86	3·32	0·2108
33.....	6,190	65	29·08	0·0105	83.....	322	75	3·07	0·2329
34.....	6,125	66	28·39	0·0108	84.....	247	65	2·85	0·2632
35.....	6,059	69	27·69	0·0114	85.....	182	52	2·69	0·2857
36.....	5,990	72	27·01	0·0120	86.....	130	39	2·57	0·3000
37.....	5,918	74	26·33	0·0125	87.....	91	28	2·46	0·3077
38.....	5,844	76	25·65	0·0130	88.....	63	21	2·33	0·3333
39.....	5,768	80	24·99	0·0139	89.....	42	17	2·24	0·4048
40.....	5,688	82	24·33	0·0144	90.....	25	10	2·42	0·4000
41.....	5,606	84	23·68	0·0150	91.....	15	5	2·70	0·3333
42.....	5,522	87	23·03	0·0158	92.....	10	3	2·80	0·3000
43.....	5,435	90	22·39	0·0166	93.....	7	1	2·79	0·1429
44.....	5,345	91	21·76	0·0170	94.....	6	2	2·17	0·3333
45.....	5,254	93	21·13	0·0177	95.....	4	1	2·00	0·2500
46.....	5,161	94	20·50	0·0182	96.....	3	1	1·50	0·3333
47.....	5,067	97	19·87	0·0191	97.....	2	1	1·00	0·5000
48.....	4,970	100	19·25	0·0201	98.....	1	1	0·50	1·0000
49.....	4,870	102	18·63	0·0209					

TABLE C.—LIFE TABLE for SWEDEN, 1841-55—*Contd.*PART II.—*Female Life.*

Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.	Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.
0.....	10,000	1,395	45.60	0.1395	51	5,380	87	19.40	0.0162
1.....	8,605	317	51.95	0.0368	52	5,293	92	18.71	0.0174
2.....	8,288	207	52.92	0.0250	53	5,201	97	18.03	0.0187
3.....	8,081	115	53.26	0.0179	54	5,104	100	17.36	0.0196
4.....	7,936	109	53.22	0.0137	55	5,004	103	16.70	0.0206
5.....	7,827	85	52.96	0.0109	56	4,901	108	16.04	0.0220
6.....	7,742	68	52.53	0.0088	57	4,793	112	15.39	0.0234
7.....	7,674	59	51.99	0.0077	58	4,681	116	14.75	0.0248
8.....	7,615	49	51.39	0.0064	59	4,565	120	14.11	0.0263
9.....	7,566	40	50.72	0.0053	60	4,445	127	13.48	0.0286
10.....	7,526	36	49.99	0.0048	61	4,318	132	12.86	0.0306
11.....	7,490	32	49.23	0.0043	62	4,186	140	12.25	0.0334
12.....	7,458	32	48.44	0.0043	63 ...	4,046	147	11.66	0.0363
13.....	7,426	33	47.64	0.0044	64	3,899	157	11.08	0.0403
14.....	7,393	33	46.85	0.0045	65	3,742	167	10.52	0.0446
15.....	7,360	33	46.06	0.0045	66	3,575	175	9.99	0.0490
16.....	7,327	35	45.27	0.0048	67	3,400	182	9.48	0.0535
17.....	7,292	35	44.48	0.0048	68	3,218	187	8.98	0.0581
18.....	7,257	36	43.69	0.0050	69	3,031	190	8.51	0.0627
19.....	7,221	36	42.91	0.0050	70	2,841	195	8.04	0.0686
20.....	7,185	37	42.12	0.0051	71	2,646	198	7.60	0.0748
21.....	7,148	39	41.34	0.0055	72	2,448	200	7.17	0.0817
22.....	7,109	41	40.56	0.0058	73	2,248	199	6.77	0.0885
23.....	7,068	41	39.79	0.0058	74	2,049	194	6.38	0.0947
24.....	7,027	42	39.02	0.0060	75	1,855	192	5.99	0.1035
25.....	6,985	43	38.25	0.0062	76	1,663	186	5.63	0.1118
26.....	6,942	45	37.49	0.0065	77	1,477	180	5.27	0.1219
27.....	6,897	45	36.73	0.0065	78	1,297	173	4.93	0.1334
28.....	6,852	46	35.97	0.0067	79	1,124	165	4.61	0.1468
29.....	6,806	48	35.21	0.0071	80	959	153	4.32	0.1595
30.....	6,758	50	34.45	0.0074	81	806	140	4.05	0.1737
31.....	6,708	52	33.71	0.0078	82	666	123	3.79	0.1847
32.....	6,656	54	32.97	0.0081	83	543	110	3.54	0.2026
33.....	6,602	55	32.23	0.0083	84	433	97	3.31	0.2240
34.....	6,547	58	31.50	0.0089	85	336	80	3.13	0.2381
35.....	6,489	59	30.78	0.0091	86	256	64	2.95	0.2500
36.....	6,430	61	30.05	0.0095	87	192	53	2.76	0.2760
37.....	6,369	63	29.34	0.0099	88	139	43	2.62	0.3094
38.....	6,306	64	28.62	0.0101	89	96	35	2.57	0.3646
39.....	6,242	66	27.91	0.0106	90	61	23	2.76	0.3770
40.....	6,176	68	27.21	0.0110	91	38	11	3.13	0.2895
41.....	6,108	69	26.50	0.0113	92	27	7	3.20	0.2593
42.....	6,039	70	25.80	0.0116	93	20	4	3.15	0.2000
43.....	5,969	71	25.10	0.0119	94	16	4	2.81	0.2500
44.....	5,898	72	24.39	0.0122	95	12	3	2.58	0.2500
45.....	5,826	72	23.69	0.0124	96	9	3	2.28	0.3333
46.....	5,754	73	22.98	0.0127	97	6	2	2.17	0.3333
47.....	5,681	73	22.27	0.0128	98	4	1	2.00	0.2500
48.....	5,608	73	21.55	0.0130	99	3	1	1.50	0.3333
49.....	5,535	75	20.83	0.0136	100	2	1	1.00	0.5000
50.....	5,460	80	20.11	0.0147	101	1	1	.50	1.0000

TABLE C.—LIFE TABLE for SWEDEN, 1841-55—*Contd.*

PART III.—Both Sexes combined.

Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.	Age.	Living.	Decrements.	Average Expectation of Life.	Probability of Dying in One Year.
0.....	10,000	1,518	43·43	0·1518	51	5,018	98	18·50	0·0195
1.....	8,482	327	50·15	0·0386	52	4,920	103	17·86	0·0209
2.....	8,155	214	51·15	0·0262	53	4,817	106	17·23	0·0220
3.....	7,941	148	51·51	0·0186	54	4,711	110	16·61	0·0233
4.....	7,793	111	51·48	0·0142	55	4,601	111	15·99	0·0241
5.....	7,682	87	51·22	0·0113	56	4,490	115	15·38	0·0256
6.....	7,595	72	50·80	0·0095	57	4,375	118	14·77	0·0270
7.....	7,523	60	50·28	0·0080	58	4,257	121	14·16	0·0284
8.....	7,463	50	49·68	0·0067	59	4,136	126	13·56	0·0305
9.....	7,413	42	49·01	0·0057	60	4,010	128	12·97	0·0319
10.....	7,371	36	48·29	0·0049	61	3,882	134	12·38	0·0345
11.....	7,335	33	47·52	0·0045	62	3,748	138	11·81	0·0368
12.....	7,302	32	46·73	0·0044	63	3,610	144	11·24	0·0399
13.....	7,270	32	45·94	0·0044	64	3,466	151	10·69	0·0436
14.....	7,238	33	45·14	0·0046	65	3,315	159	10·15	0·0480
15.....	7,205	34	44·34	0·0047	66	3,156	169	9·64	0·0535
16.....	7,171	34	43·55	0·0047	67	2,987	173	9·15	0·0579
17.....	7,137	35	42·76	0·0049	68	2,814	176	8·69	0·0625
18.....	7,102	35	41·96	0·0049	69	2,638	177	8·23	0·0671
19.....	7,067	37	41·17	0·0052	70	2,461	178	7·79	0·0723
20.....	7,030	39	40·38	0·0055	71	2,283	181	7·36	0·0793
21.....	6,991	43	39·61	0·0062	72	2,102	179	6·95	0·0852
22.....	6,948	45	38·85	0·0065	73	1,923	179	6·55	0·0931
23.....	6,903	46	38·10	0·0067	74	1,744	174	6·17	0·0998
24.....	6,857	47	37·35	0·0069	75	1,570	171	5·79	0·1089
25.....	6,809	48	36·60	0·0070	76	1,399	164	5·44	0·1172
26.....	6,762	49	35·86	0·0072	77	1,235	156	5·10	0·1263
27.....	6,713	49	35·12	0·0073	78	1,079	150	4·76	0·1390
28.....	6,664	51	34·37	0·0077	79	929	143	4·45	0·1539
29.....	6,613	52	33·63	0·0079	80	786	127	4·17	0·1616
30.....	6,561	54	32·90	0·0082	81	659	116	3·88	0·1760
31.....	6,507	57	32·17	0·0088	82	543	104	3·60	0·1915
32.....	6,450	58	31·45	0·0090	83	439	94	3·33	0·2141
33.....	6,392	59	30·73	0·0092	84	345	84	3·11	0·2435
34.....	6,333	62	30·01	0·0098	85	261	69	2·94	0·2644
35.....	6,271	64	29·30	0·0102	86	192	52	2·82	0·2708
36.....	6,207	67	28·60	0·0108	87	140	40	2·69	0·2857
37.....	6,140	68	27·70	0·0111	88	100	32	2·56	0·3200
38.....	6,072	70	27·21	0·0115	89	68	24	2·53	0·3529
39.....	6,002	73	26·52	0·0122	90	44	18	2·64	0·4091
40.....	5,929	75	25·84	0·0126	91	26	7	3·12	0·2692
41.....	5,854	77	25·17	0·0132	92	19	5	3·08	0·2632
42.....	5,777	78	24·50	0·0135	93	14	3	3·00	0·2143
43.....	5,699	80	23·82	0·0140	94	11	3	2·68	0·2727
44.....	5,619	82	23·16	0·0146	95	8	2	2·50	0·2500
45.....	5,537	83	22·49	0·0150	96	6	2	2·17	0·3333
46.....	5,454	84	21·83	0·0154	97	4	1	2·00	0·2500
47.....	5,370	84	21·16	0·0156	98	3	1	1·50	0·3333
48.....	5,286	86	20·49	0·0163	99	2	1	1·00	0·5000
49.....	5,200	89	19·82	0·0171	100	1	1	0·50	1·0000
50.....	5,111	93	19·16	0·0182					

TABLE D.—SWEDEN (1751-1855).—INCREASE *of the* POPULATION.—
Quinquennial and Annual Ratios.

Years.	Total Increase of the Population in each Five Years.	Per Cent.		Years.	Total Increase of the Population in each Five Years.	Per Cent.	
		For each Quinquennium.	For each Year.			For each Quinquennium.	For each Year.
1751-55	90,351	5·12	1·004	1810-15	87,215	3·66	0·723
'56-60	39,559	2·13	0·422	'16-20	119,624	4·85	0·952
'61-65	71,576	3·78	0·745	'21-25	186,562	7·21	1·392
'66-70	65,750	3·34	0·660	'26-30	116,830	4·21	0·829
'76-80	97,434	4·82	0·956	'31-35	137,357	4·75	0·934
1781-85	31,492	1·48	0·305	1836-40	113,448	3·75	0·739
'86-90	8,459	0·39	0·079	'41-45	177,649	5·65	1·107
'91-95	122,905	5·69	1·024	'46-50	166,005	5·00	0·982
'96-1800	66,166	2·90	0·657	'51-55	156,791	4·50	0·888
1801-05	80,105	3·41	0·674	Total 1816-55 }	1,174,266	47·63	0·978

GREAT BRITAIN AND IRELAND.

	Years.	Actual Increase of Population.	Increase.	Per Annum.
			Per cent.	Per cent.
Great Britain and Ireland	1801-61	13,239,534	82·3	1·371
„ „	'01-31	8,297,231	52·0	1·733
„ „	'31-61	4,942,303	20·0	0·667
England and Wales	'51-61	2,134,116	12·0	1·200
Scotland	'51-61	172,509	6·0	0·600
Ireland.....	'51-61	-787,842	-12·0	-1·202

TABLE D.—INCREASE of the POPULATION in various Countries (1769-1855)
—Contd.

Countries.	Year and Date of Census.	Population.	Increase per Cent.	
			For the whole Period between each Census.	Average per Annum.
Norway	1769	748,000	—	—
	1801	883,038	18·05	0·57
	'15	885,431	0·27	0·02
	'25	1,051,318	18·74	1·77
	'35	1,194,827	13·65	1·36
	'45	1,328,471	11·19	1·11
	'55	1,490,047	12·17	1·21
Denmark (without the Duchies)	1801	925,680	—	—
	'34	1,223,797	32·21	0·94
	'40	1,283,027	4·83	0·80
	'45	1,350,327	5·24	1·05
	'50	1,407,747	4·25	0·85
	'55	1,499,850	6·54	1·31
Hanover	1848	1,758,847	—	—
	'52	1,819,253	3·43	0·77
	'55	1,819,777	0·03	0·009
Prussia (without Neufchatel)	1816	10,349,031	—	—
	'19	10,981,934	6·12	2·03
	'22	11,664,133	6·21	2·07
	'25	12,256,725	5·08	1·69
	'28	12,726,110	3·83	1·27
	'31	13,038,960	2·46	0·81
	'34	13,509,927	3·61	1·20
	'37	14,098,125	4·35	1·44
	'40	14,928,501	5·89	1·96
	'43	15,471,084	3·63	1·21
	'46	16,112,938	4·15	1·38
	'49	16,331,187	1·35	0·45
	'52	16,935,420	3·70	1·23
Kingdom of Saxony	1832	1,558,153	—	—
	'34	1,595,668	2·41	0·99
	'37	1,652,114	3·54	1·17
	'40	1,706,276	3·28	1·09
	'43	1,757,800	3·02	1·00
	'46	1,836,433	4·47	1·49
	'49	1,894,431	3·16	1·05
Bavaria	1818	3,707,966	—	—
	'27	4,044,569	9·08	1·00
	'30	4,133,760	2·20	0·73
	'34	4,246,778	2·73	0·68
	'37	4,315,469	1·62	0·54
	'40	4,370,977	1·28	0·42
	'43	4,440,327	1·58	0·52
	'46	4,504,874	1·45	0·48
	'49	4,520,751	0·35	0·12
	'52	4,559,452	0·85	0·28

TABLE D.—INCREASE of the POPULATION in various Countries (1769-1855)
—Contd.

Countries.	Year and Date of Census.	Population.	Increase per Cent.	
			For the whole Period between each Census.	Average per Annum.
Holland	1840	2,860,450	—	—
	'49	3,056,879	6·86	0·75
Belgium	1831	3,785,814	—	—
	'46	4,337,196	14·56	0·98
France	1800	27,349,003	—	—
(without Algeria)	'06	29,107,425	+ 6·43	+ 1·28
	'11	29,092,734	— 0·05	— 0·01
	'21	30,461,875	+ 4·71	+ 0·47
	'26	31,858,937	4·59	0·92
	'31	32,569,223	2·23	0·44
	'36	33,540,910	2·98	0·59
	'41	34,230,178	2·06	0·41
	'46	35,400,486	3·42	0·68
	'51	35,783,170	1·08	0·21
	'56	36,039,364	0·71	0·14
England and Wales	1801	9,156,171	—	—
	'11	10,454,529	14·18	1·39
	'21	12,172,664	16·43	1·64
	'31	14,051,986	15·44	1·54
	'41	16,035,198	14·11	1·31
	'51	18,054,170	12·59	1·37
	'61	20,223,746	12·00	1·20
Scotland	1801	1,678,452	—	—
	'11	1,884,044	12·22	1·19
	'21	2,137,325	13·44	1·34
	'31	2,405,610	12·55	1·25
	'41	2,652,339	10·25	1·02
	'51	2,922,362	10·18	1·10
	'61	3,061,251	6·00	0·60
Ireland	1821	6,801,827	—	—
	'31	7,767,401	14·20	1·42
	'41	8,175,124	5·25	0·52
	'51	6,552,386	— 19·85	— 1·98
	'61	5,764,543	— 12·02	— 1·20
United States of North } America	1790	3,929,827	—	—
	1800	5,305,925	35·09	3·51
	'10	7,239,814	36·45	3·64
	'20	9,638,131	33·13	3·31
	'30	12,866,020	33·49	3·35
	'40	17,069,453	32·67	3·26
	'50	23,191,876	35·87	3·58

TABLE E.—SWEDEN (1805-55).—*Proportion of INHABITANTS of the COUNTRY to Inhabitants of Towns.*

Years.	To 1,000 Inhabitants of the Country, there were the following Numbers in Towns.									
	Sweden.	Norway.	Denmark.	Prussia.	Saxony.	Würtemberg.	Holland.	Belgium.	England and Wales.	Scotland.
1787....	—	—	258	—	—	—	—	—	—	—
1801....	—	—	260	—	—	—	—	—	—	—
'05....	106	—	—	—	—	—	—	—	—	—
'10....	106	—	—	—	—	—	—	—	—	—
'15....	112	—	—	—	—	—	—	—	—	—
1820....	112	—	—	—	—	—	—	—	—	—
'25....	112	123	—	—	—	—	—	—	—	—
'29....	—	—	—	—	—	—	—	323	—	—
'30....	108	—	—	—	—	—	—	—	—	—
'31....	—	—	—	374	—	—	—	—	—	—
1832....	—	—	—	—	490	—	—	—	—	—
'34....	—	—	259	376	486	—	—	—	—	—
'35....	106	121	—	—	—	—	—	—	—	—
'37....	—	—	—	—	498	—	—	—	—	—
'39....	—	—	—	—	—	—	577	—	—	—
1840....	106	—	254	—	508	—	—	—	—	—
'43....	—	—	—	382	524	—	—	—	—	—
'45....	108	138	258	—	—	—	—	—	—	—
'46....	—	—	—	—	528	322	—	337	—	—
'49....	—	—	—	390	538	—	563	—	—	—
1850....	112	—	260	—	—	—	—	—	—	—
'51....	—	—	—	—	—	—	—	—	1,066	1,075
'52....	—	—	—	397	—	323	—	—	—	—
'55....	116	153	280	—	—	331	—	—	—	—

TABLE F.—SWEDEN (1751-1855).—*PROPORTION of the SEXES in the POPULATION.*

Years.	Number of Women to every 1,000 Men.	Years.	Number of Women to every 1,000 Men.	Years.	Number of Women to every 1,000 Men.	Years.	Number of Women to every 1,000 Men.
1751	1,124	1772....	1,096	1800	1,084	1830	1,076
'54	1,117	'75....	1,089	'05	1,066	'35	1,070
'57	1,115	'80....	1,081	'10	1,097	'40	1,070
'60	1,120	'85....	1,072	'15	1,094	'45	1,068
'63	1,107	'90....	1,090	'20	1,085	'50	1,064
'66	1,099	'95....	1,086	'25	1,079	'55	1,063
'69	1,097						

TABLE F.—Comparison with other Countries—Contd.

Countries.	Years.	Number of Women to every 1,000 Men.	Countries.	Years.	Number of Women to every 1,000 Men.
Norway	1769	1,100	Baden	1821-25	1,050
	1801	1,090		'26-30	1,048
	'25	1,060		'33	1,047
	'35	1,041		'36-39	1,049
	'45	1,037		'42-45	1,046
	'55	1,041		'46	1,045
				'49	1,052
Denmark	1787	1,018		'52	1,054
(excluding the	1801	1,018		'55	1,063
Duchies)	'34	1,022			
	'40	1,026	Netherlands	1840	1,042
	'45	1,023		'49	1,039
	'50	1,021			
	'55	1,021			
Hanover.....	1848	1,009	Belgium.....	1829	1,033
	'52	1,004		'46	1,005
	'55	1,006			
Prussia	1816	1,016	France	1801	1,054
	'37	1,003		'06	1,034
	'40	1,004		'21	1,059
	'43	1,004		'31	1,042
	'46	1,002		'36	1,037
	'49	1,001		'41	1,025
	'52	1,004		'46	1,018
				'51	1,011
Kingdom of } Saxony	1816	1,089			
	'20	1,081	England and } Wales.....	1801	1,026
	'30	1,067		'11	1,025
	'32	1,059		'21	1,021
	'34	1,058		'31	1,029
	'37	1,055		'41	1,030
	'40	1,057		'51	1,027
	'43	1,054			
	'46	1,049	Scotland	1801	1,074
	'49	1,052		'11	1,083
Bavaria	1834	1,051		'21	1,078
	'37	1,048		'31	1,081
	'40	1,050		'41	1,082
	'43	1,049		'51	1,074
	'46	1,045			
	'49	1,050			
	'52	1,040			
Wurtemberg	1832	1,054	Ireland	1821	1,035
	'34	1,071		'31	1,046
	'37	1,066		'41	1,034
	'40	1,063		'51	1,054
	'43	1,054			
	'46	1,056	United States of } North America }	1820	968
	'49	1,056		'30	970
	'52	1,067		'40	964
	'55	1,011		'50	959

TABLE G.—SWEDEN (1751-1855).—PROPORTION of MARRIAGES to
POPULATION compared with similar Results in other Countries.

Countries.	Years.	Number of <i>Inhabitants</i> to One Marriage.	Countries.	Years.	Number of <i>Inhabitants</i> to One Marriage.
Sweden	1751-60	110	Bavaria	1830-32	152
	'61-70	116		'33-35	149
	'71-80	118		'36-38	156
	'81-90	126		'39-41	150
	'91-1800	117		'42-44	141
	1801-10	122		'45-47	154
	'11-20	115		'48-51	150
	'21-30	120	Baden	1827-30	141
	'31-40	140		'31-35	129
	'41-50	134		'36-40	125
	'51-55	136		'41-45	131
Norway	1796-1805	129		'46-50	147
	1816-25	113		'51	163
	'26-35	132		'52	196
	'36-45	137		'53	200
	'46-55	129		'54	208
Denmark	1801-33	119		'55	182
	'34-39	131	Netherlands.....	1815-28	124
	'40-44	129		'40	129
	'45-49	125		'41	133
Saxony.....	1831-35	123		'42	139
	'36-40	121		'43	139
	'41	117		'44	134
	'42	113		'45	132
	'43	123		'46	148
	'44	119		'47	159
	'45	115		'48	139
	'46	113		'49	122
	'47	130		'50	112
	'48	125		'51	117
	'49	118		'52	124
	'50	104		'53	131
Prussia.....	1748-90	101	Belgium	1841	139
	1816	88		'42	144
	'19	99		'43	149
	'22	110		'44	145
	'25	109		'45	147
	'28	121		'46	169
	'31	132		'47	180
	'34	104		'48	152
	'37	110		'49	138
	'40	113		'50	131
	'43	110	France	1801-05	137
	'46	116		'06-10	127
	'49	110		'11-15	117
	'52	118		'16-20	138

TABLE J.—SWEDEN (1751-1855).—PROPORTION of MARRIAGES, &c.—*Contd.*

Countries.	Years.	Number of Inhabitants to One Marriage.	Countries.	Years.	Number of Inhabitants to One Marriage.
France— <i>contd.</i>	1821-25	130	England— <i>contd.</i>	1796-1805	115
	'26-30	126		1806-15	122
	'31-35	127		'16-25	123
	'36-40	124		'26-35	124
	'41-45	123		'39	126
	'46-50	128		'40	128
Portugal	1838-41	144		'41	130
				'44	129
England	1761	103		'36-45	128
	'71	106		'49	119
	'81	109			
	'91	112			
			Scotland	1855	118

TABLE H.—MARRIAGES arranged according to Civil Position in Sweden and in other Countries, 1810-55.

Years.	Out of every 100 Marriages, there occurred the following Number between								
	Single Men and Women.	Widowers and Single Women	Single Men and Widows.	Widowers and Widows.	Total.	Total Males.		Total Females.	
						Single Men Married.	Widowers Married.	Single Women Married.	Widows Married.
1855	84.1	9.2	4.6	2.1	100	88.7	11.3	93.3	6.7
'54	84.0	9.3	4.6	2.1	100	88.6	11.4	93.3	6.7
'53	84.7	8.6	4.8	1.9	100	89.5	10.5	93.3	6.7
'52	85.0	8.6	4.4	2.0	100	89.4	10.6	93.6	6.4
'51	85.8	7.8	4.4	2.0	100	90.2	9.8	93.6	6.4
1851-55	84.7	8.7	4.6	2.0	100	89.3	10.7	93.4	6.6
'46-50	84.7	8.3	4.9	2.1	100	89.6	10.4	93.0	7.0
'41-45	82.0	9.6	5.6	2.8	100	87.6	12.4	91.6	8.4
'36-40	79.4	10.7	6.5	3.4	100	85.9	14.1	90.1	9.9
'31-35	77.6	11.6	7.0	3.8	100	84.6	15.4	89.2	10.8
'26-30	78.7	11.1	6.8	3.4	100	85.5	14.5	89.8	10.2
'21-25	78.9	11.1	6.8	3.2	100	85.7	14.3	90.0	10.0
'16-20	77.0	11.8	7.6	3.6	100	84.6	15.4	88.8	11.2
'11-15	71.9	13.4	9.7	5.0	100	81.6	18.4	85.3	14.7
'06-10	73.9	13.1	8.9	4.1	100	82.8	17.2	87.0	13.0
Average	78.88	10.94	6.84	3.34	100	85.72	14.28	89.82	10.18
Of which, in rural districts :									
51-55	84.7	8.7	4.5	2.1	100	89.2	10.8	93.4	6.6
46-50	84.5	8.4	4.9	2.2	100	89.4	10.6	92.9	7.1
In towns :									
51-55	84.6	8.5	5.1	1.8	100	89.7	10.3	93.1	6.9
46-50	86.3	7.0	5.4	1.3	100	91.7	8.3	93.3	6.7

TABLE H.—MARRIAGES *arranged according to Civil Position in Sweden, &c.—Contd.*

Countries.	Years.	Out of every 100 Marriages, there occurred the following Number between								
		Single Men and Women.	Widowers and Single Women.	Single Men and Widows.	Widowers and Widows.	Total.	Total Males.		Total Females.	
							Single Men Married.	Widowers Married.	Single Women Married.	Widows Married.
Norway	1839-45	79·4	10·6	6·7	3·3	100	86·1	13·9	90·0	10·0
	'46-55	83·36	8·99	5·14	2·51	100	88·5	11·5	92·35	7·65
Denmark	1836-44	74·2	9·7	13·5	2·6	100	87·7	12·3	83·9	16·1
	'45-49	76·5	12·7	8·6	2·2	100	85·1	14·9	89·2	10·8
Saxony.....	1834-49	83·6	16·4			100	—	—	—	—
Bavaria	1845-51	77·0	14·3	6·8	1·9	100	83·8	16·2	91·3	8·7
Austria.....	1830-47	74·5	18·7		6·8	100	—	—	—	—
Belgium	1841-50	80·9	11·4	5·0	2·7	100	85·9	14·1	92·3	7·7
France	1836-53	83·5	9·4	3·7	3·4	100	87·2	12·8	92·9	7·1
England	1845-51	82·3	8·9	4·2	4·6	100	86·5	13·5	91·2	8·8

TABLE I.—SWEDEN (1821-55).—PROPORTION OF FIRST *to other* MARRIAGES *of the* HUSBAND.

Years.	Out of 1,000 Marriages of the Husband:						
	First Marriages.	Second Marriages.	Third Marriages.	Fourth Marriages.	Fifth Marriages.	Sixth Marriages.	Total.
1851-55	892·14	103·29	4·18	0·38	0·01	—	1,000
'46-50	895·85	99·22	4·65	0·26	0·02	—	1,000
'41-45	874·09	119·69	5·79	0·39	0·04	—	1,000
'36-40	856·78	134·72	7·71	0·69	0·10	—	1,000
'31-35	842·21	148·67	8·59	0·48	0·05	—	1,000
'26-30	856·14	136·54	6·839	0·445	0·027	0·009	1,000
'21-25	857·401	135·621	6·523	0·405	0·042	0·008	1,000
Average...	867·802	125·393	6·326	0·436	0·041	0·002	1,000

TABLE K.—SWEDEN (1831-55).—AGES at MARRIAGE, proportions for each Sex.

Years.	Ages of the Couples in every 100 Marriages celebrated.								
	Men, Aged:				Total.	Women, Aged:			
	Under 25.	26 to 35.	36 to 50.	Above 50.		Under 25.	26 to 35.	36 to 50.	Above 50.
1851-55	28·38	55·90	12·92	2·80	100	40·22	47·90	10·70	1·18
'46-50	33·30	52·70	11·30	2·70	100	43·80	45·00	9·60	1·60
'41-45	35·30	49·30	12·10	3·30	100	46·50	41·50	10·50	1·50
'36-40	36·40	46·40	13·60	3·60	100	47·90	38·70	11·90	1·50
'31-35	35·90	45·80	14·10	4·20	100	46·30	38·70	13·10	1·90
Average, 1831-55	33·856	50·02	12·804	3·32	100	44·944	42·36	11·16	1·536
Of which, in rural districts:									
1851-55	30·2	55·0	12·2	2·6	100	41·6	46·9	9·7	1·8
'41-45	36·2	48·4	11·9	3·5	100	47·9	40·6	9·9	1·6
'31-35	37·0	44·9	13·8	4·3	100	47·7	37·8	12·5	2·0
In towns:									
1851-55	19·84	61·4	16·46	2·3	100	27·96	54·7	16·4	0·94
'41-45	26·2	57·0	14·6	2·2	100	32·6	50·1	16·0	1·3
'31-35	25·3	54·4	17·2	3·1	100	32·2	47·8	18·6	1·4
Norway, 1841-45	25·80	54·26	15·14	4·80	100	42·36	42·52	12·80	2·32
Denmark, 1845-49	19·8	57·7	18·8	3·7	100	36·6	48·1	13·8	1·5

TABLE L.—SWEDEN (1751-1855).—PROPORTION of BIRTHS (*Children Born Alive and Still-born, separately and together*) to the WHOLE POPULATION, to the whole FEMALE POPULATION, to the Female Population between the Ages of 15 and 55, and to the Number of Marriages Contracted.—Averages for each Quinquennium.

ONE Living Child Born to the undermentioned Number of the Population.

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1751-55	26·67	1791-95	29·27	1831-35	31·00
'56-60	28·80	'96-1800	30·51	'36-40	32·68
'61-65	28·56	1801-05	31·98	'41-45	32·00
'66-70	29·40	'06-10	32·68	'46-50	32·43
'71-75	32·02	'11-15	30·34	'51-55	31·45
'76-80	28·90	'16-20	29·61	Average {	1751-75.... 29·09
'81-85	31·41	'21-25	27·98		'76-1815 30·73
'86-90	30·76	'26-30	29·80		1816-55.... 30·87
					30·39

TABLE L.—SWEDEN (1751-1855).—PROPORTION of BIRTHS, &c.—*Contd.*

ONE Living Child Born to the following Number of the FEMALE Population.

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.		
1751-55	14.09	1791-95	15.25	1831-35	16.05		
'56-60	15.20	'96-1800	15.79	'36-40	16.89		
'61-65	15.02	1801-05	16.59	'41-45	16.53		
'66-70	15.21	'06-10	17.00	'46-50	16.73		
'71-75	16.53	'11-15	15.86	'51-55	16.21		
'76-80	14.34	'16-20	15.44	Average {	15.76		
'81-85	16.28	'21-25	14.54			1751-75 ...	15.21
'86-90	15.98	'26-30	15.45			'76-1815	15.89
					1816-55 ...	15.98	

ONE Child (Living or Still-born) Born to the following Number of the Population.

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1776-80 ...	28.08	1806-10 ...	31.88	1836-40	31.69
'81-85 ...	30.53	'11-15 ...	29.59	'41-45	31.01
'86-90 ...	29.94	'16-20 ...	28.89	'46-50	30.41
'91-95 ...	28.42	'21-25 ...	27.26	'51-55	30.45
'96-1800	29.51	'26-30 ...	29.01	Average {	1776-1815 29.89
1801-05 ...	31.19	'31-35 ...	30.99		1816-55... 29.85
					29.87

ONE Child (Living or Still-born) Born to the following Number of the FEMALE Population.

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1776-80 ...	13.94	1806-10 ...	16.59	1836-40	16.38
'81-85 ...	15.83	'11-15 ...	15.47	'41-45	16.02
'86-90 ...	15.55	'16-20 ...	15.06	'46-50	16.21
'91-95 ...	14.81	'21-25 ...	14.17	'51-55	15.69
'96-1800	15.35	'26-30 ...	15.05	Average {	1776-1815 15.45
1801-05 ...	16.18	'31-35 ...	15.58		1816-55.... 15.52
					15.49

ONE Child (Living or Still-born) Born to the following Number of WOMEN between the Ages of 15 and 55.

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1806-10 ...	9.20	1826-30 ...	8.00	1846-50	8.92
'11-15 ...	8.64	'31-35 ...	8.28	'51-55	8.62
'16-20 ...	8.36	'36-40 ...	8.83	Average { 1806-15... 8.97 }	8.53
'21-25 ...	7.67	'41-45 ...	8.78			'16-55... 8.43 }

TABLE L.—SWEDEN (1751-1855).—PROPORTION of BIRTHS, &c.—*Contd.*
To ONE Marriage Contracted, the following were the Numbers of Children
Born Alive.

Years.	Numbers.	Years.	Numbers.	Years.	Numbers.
1751-55	4.05	1791-95 ...	3.77	1831-35	4.32
'56-60	3.92	'96-1800	4.08	'36-40	4.51
'61-65	3.94	1801-05 ...	3.95	'41-45	4.32
'66-70	4.09	'06-10 ...	3.57	'46-50	4.06
'71-75	3.87	'11-15 ...	3.71	'51-55	4.34
'76-80 ...	3.91	'16-20 ...	3.95	Average {	1751-75... 3.98
'81-85	4.09	'21-25 ...	4.02		'76-1815 3.77
'86-90	4.02	'26-30 ...	4.31		1816-55... 4.23
				} 3.99	

Supplement to TABLE L.—PROPORTION of BIRTHS to the POPULATION in
some other Countries.

ONE Child Born to the undermentioned Number of Inhabitants.

Countries.	Years.	Numbers.	Countries.	Years.	Numbers.
Norway	1826-35	30.1	Baden.....	1831-35	26.42
	'36-45	32.8		'36-40	24.95
	'46-55	30.4		'41-45	24.75
Denmark	1835-44	31.65		'46-50	25.92
	'45-49	31.21		'51-55	30.30
Hanover.....	1824-33	30.25	Austria	1830-35	25.33
	'34-43	30.02		'36-41	24.78
	'53	30.7		'42-47	25.00
Prussia	1748-90	24.62	Netherlands ...	1841-45	27.52
	1816-46	24.64		'46-50	30.16
	'49	23.62		'51-53	28.05
	'50	24.12	Belgium.....	1841-50	33.15
	'51	24.51			
Saxony	'52	25.13	France	1817-24	31.8
	1836-40	25.10		'24-45	34.33
	'41-45	24.43		'46-50	36.09
Bavaria	'46-50	24.36		'51-54	36.22
	1833-35	35.66	Ireland	1832-41	30.3
	'36-38	35.87			
	'39-41	35.41			
	'42-44	35.07			

ONE Living Child Born to the undermentioned Number of Inhabitants.

Countries.	Years.	Numbers.	Countries.	Years.	Numbers.
Norway	1796-1805	33.5	France	1836-40	35.31
	1826-35	31.1		'41-45	35.66
	'36-45	34.1		'46-50	37.48
	'46-55	31.6		'51-54	38.22
Hanover.....	1853	32.0	England.....	1838-40	31.6
				'41-45	31.0
				'46-50	30.6

TABLE M.—SWEDEN (1749-1855).—PROPORTION of MALE to FEMALE BIRTHS.

Country.	Years.	Males Born Alive to 1,000 Females.	Country.	Years.	Males Born Alive to 1,000 Females.
Sweden	1851-55	1·050	Sweden— <i>contd.</i>	1791-1800	1·049
	'41-50	1·045		'81-90	1·045
	'31-40	1·047		'71-80	1·041
	'21-30	1·044		'61-70	1·046
	'11-20	1·045		'51-60	1·043
	'01-10	1·045		1749 and '50	1·030

Countries.	Years.	Males Born Alive to 1,000 Females.	Males Born (including Still-born), to 1,000 Females.
Norway	1801-35	1,049	—
	'36-45	1,053	1,061
	'46-55	1,047	1,057
Denmark	1835-49	1,041	1,055
Hanover	1824-43	1,054	1,065
Prussia.....	1816-52	—	1,057
Saxony.....	1834-49	—	1,065
Austria.....	1830-47	1,062	1,066
Bavaria	1835-51	—	1,063
Baden	1835-55	—	1,059
Holland	1840-53	—	1,065
Belgium	1841-50	1,052	—
France	1817-54	—	1,062
England	1843-52	1,047	—
Scotland	1855 and '56	1,053	—

TABLE N.—SWEDEN (1776-1855).—ILLEGITIMATE BIRTHS.—*Proportion to Legitimate Births and to the Female Population.*

In Sweden. — Years.	Number of Bastard Children Born Alive.	Bastard Births to 100 Births (including Still-born).	Bastard Births to 100 Legitimate Births (including Still-born).	Bastard Children Born Alive, to 100 Births of Living Children.	Bastard Births to 100 Births of Living Legitimate Children.
1855	10,803	9·55	10·55	9·39	10·36
'54	10,986	9·35	10·31	9·15	10·06
'53	10,144	9·30	10·25	9·11	10·01
'52	10,239	9·64	10·66	9·45	10·44
'51	10,606	9·75	10·80	9·55	10·55
1851-55.....	52,778	9·51	10·51	9·33	10·28
'46-50.....	46,570	9·07	9·97	8·89	9·75
'41-45.....	42,303	8·58	9·39	8·39	9·15
'36-40.....	32,429	7·09	7·63	6·88	7·38
'31-35.....	31,289	6·78	7·26	6·56	7·02
1826-30.....	29,261	—	—	6·24	6·65
'21-25.....	33,566	—	—	7·01	7·54
'16-20.....	29,478	—	—	6·92	7·42
'11-15.....	26,466	—	—	6·63	7·10
'06-10.....	23,585	—	—	6·42	6·85
'01-05.....	21,828	—	—	5·85	6·21
1796-1800.....	19,856	—	—	5·21	5·49
'91-95.....	18,310	—	—	4·83	5·07
'86-90.....	15,322	—	—	4·38	4·57
'81-85.....	11,517	—	—	3·39	3·51
'76-80.....	11,150	—	—	3·11	3·21
Average	—	8·206	8·952	6·25	6·70

In Sweden. — Years.	One Bastard Birth to the following Number of the whole Female Population.		One Bastard Birth to the following Number of Unmarried Women over 15 Years of Age.	
	Born Alive and Still-born.	Born Alive.	Born Alive and Still-born.	Born Alive.
1851-55.....	164·94	173·86	45·25	47·69
'46-50.....	178·78	188·31	48·74	51·34
'41-45.....	186·67	197·09	49·69	52·46
'36-40.....	230·96	245·63	57·97	61·66
'31-35.....	229·91	244·57	54·03	57·47
1826-30.....	—	247·76	—	57·29
'21-25.....	—	207·31	—	50·14
'16-20.....	—	223·32	—	56·81
'11-15.....	—	239·16	—	60·84
'06-10.....	—	265·11	—	65·82
'01-05.....	—	283·82	—	—
1796-1800.....	—	303·22	—	—
'91-95.....	—	315·83	—	—
'86-90.....	—	365·19	—	—
'81-85.....	—	480·37	—	—
'76-80.....	—	460·62	—	—
Average	198·25	277·57	51·136	56·15

TABLE N.—SWEDEN (1776-1855).—ILLEGITIMATE BIRTHS, &c.—*Contd.*

In other Countries.	Years.	Bastard Births to 100 Births (including Still-born).	Bastard Births to 100 Legitimate Births (including Still-born).	Bastard Births to 100 Births of Living Children.	Bastard Births to 100 Births of Living Legitimate Children.
Norway	1801-25	—	—	6·91	7·43
	'26-35	—	—	6·84	—
	'36-45	—	—	7·55	—
	'46-55	8·93	9·81	8·77	—
Denmark	1835-44	10·98	12·34	—	—
	'45-49	11·47	12·97	—	—
Hanover.....	1824-33	—	—	8·14	—
	'34-43	—	—	9·82	—
	'53	10·17	11·31	10·05	11·17
Prussia	1816	—	—	—	8·05
	'19-49	—	—	—	7·65
	'52	—	—	—	8·12
Saxony	1835-39	14·03	—	—	—
	'40-44	14·58	—	—	—
	'45-49	15·06	—	—	—
Austria	1830-38	9·53	—	—	—
	'39-47	10·71	—	—	—
Bavaria	1826-35	20·06	25·09	—	—
	'36-39	20·87	26·38	—	—
	'39-44	20·83	26·31	—	—
	'44-51	20·55	25·87	—	—
Baden.....	1833-55	15·02	—	—	—
Holland	1840-49	5·02	—	—	—
	'50-53	4·75	4·99	4·57	4·79
Belgium	1841-50	7·44	8·03	—	—
France	1836-40	7·41	—	—	—
	'41-53	7·18	—	—	—
England	1848-52	—	—	6·04	—

TABLE O.—SWEDEN (1776-1855).—SEXUAL RATIO of BIRTHS, *Legitimate and Illegitimate.*

Years.	To 1,000 <i>Girls</i> Born Alive there were the following Numbers of Boys Born Alive		Years.	To 1,000 <i>Girls</i> Born Alive there were the following Numbers of Boys Born Alive	
	Amongst Legitimate Births.	Amongst Illegitimate Births.		Amongst Legitimate Births.	Amongst Illegitimate Births.
1855	1,058	1,053	1816-20....	1,049	1,034
'54	1,042	1,048	'11-15....	1,043	1,051
'53	1,044	1,037	'06-10....	1,046	1,028
'52	1,058	1,046	'01-05....	1,048	1,034
'51	1,053	1,019	1796-1800	1,053	1,017
'51-55....	1,051	1,041	'91-95....	1,050	978
'46-50....	1,051	1,036	'86-90....	1,053	999
'41-45....	1,041	1,029	'81-85....	1,041	1,003
'36-40....	1,044	1,049	'76-80....	1,046	1,038
'31-35....	1,050	1,047			
'26-30....	1,046	1,030			
'21-25....	1,041	1,028	Average....	1,047	1,027

TABLE P.—SWEDEN (1776-1855).—PROPORTION *of* BIRTHS *to* DELIVERIES.

Years.	100 Deliveries produced as follows :								
	Total Living and Still-born Children.	Of which		<i>One</i>	<i>One</i>	Twins.	Triplets.	Four at a Birth.	Total.
		Born Alive.	Still- born.	Child Born Alive.	Still-born Child.				
1855	101·47	98·12	3·35	95·40	3·16	1·42	0·02	—	100
'54	101·38	98·12	3·26	95·62	3·02	1·35	0·01	—	100
'53	101·44	98·24	3·20	95·57	3·02	1·39	0·02	—	100
'52	101·37	98·20	3·17	95·63	3·03	1·31	0·03	—	100
'51	101·33	98·02	3·31	95·52	3·18	1·27	0·03	—	100
'51-55.....	101·39	98·14	3·25	95·55	3·08	1·35	0·02	—	100
'46-50.....	101·41	98·22	3·19	95·6088	3·0010	1·3718	0·0182	0·0002	100
'41-45.....	101·37	98·23	3·14	95·6097	3·0334	1·3375	0·0192	0·0002	100
'36-40.....	101·43	98·37	3·06	95·6419	2·9497	1·3863	0·0217	0·0004	100
'31-35.....	101·56	98·59	2·97	95·5875	2·8699	1·5228	0·0192	0·0006	100
'26-30.....	101·54	98·86	2·68	98·4672		1·5095	0·0229	0·0004	100
'21-25.....	101·52	98·90	2·61	98·5014		1·4774	0·0206	0·0006	100
'16-20.....	101·56	99·07	2·49	98·4580		1·5165	0·0253	0·0002	100
'11-15.....	101·72	99·20	2·52	98·3030		1·6674	0·0301	0·0005	100
'06-10.....	101·97	99·47	2·50	98·3742		1·6018	0·0235	0·0005	100
'01-05.....	101·69	99·17	2·52	98·3316		1·6392	0·0276	0·0016	100
1796-1800.....	101·74	98·94	2·80	98·3022		1·6708	0·0262	0·0008	100
'91-95.....	101·76	98·81	2·95	98·2418		1·7282	0·0289	0·0011	100
'86-90.....	101·76	99·07	2·69	98·2655		1·7031	0·0314	—	100
'81-85.....	101·80	98·96	2·84	98·2277		1·7393	0·0315	0·0015	100
'76-80.....	101·78	98·88	2·90	98·2528		1·7163	0·0306	0·0003	100
Average	101·62	98·80	2·82	—	—	1·5586	0·0248	0·0005	100
Of which in rural districts :									
1851-55.....	101·39	98·27	3·12	95·65	2·98	1·35	0·02	—	100
'46-50.....	101·40	98·32	3·08	95·3889	2·9445	1·6482	0·0182	0·0002	100
In towns :									
1851-55.....	101·46	96·98	4·48	94·594	3·982	1·398	0·026	—	100
'46-50.....	101·49	97·34	4·15	95·064	3·535	1·384	0·017	—	100

Countries.	Years.	100 Deliveries produced as follows :								
		Total Living and Still-born Children.	Of which		One Child Born Alive.	One Still-born Child.	Twins.	Triplets.	Four at a Birth.	Total.
			Born Alive.	Still-Born.						
Norway	1836-45	101·21	97·17	4·04	98·7855	1·1982	0·0163	—	100	
	'26-35	101·29	98·00	3·29	98·7203	1·2624	0·0173	—	100	
Denmark ...	1845-49	101·33	97·02	4·31	98·6873	1·2889	0·0238	—	100	
	'40-44	101·27	96·63	4·64	98·7419	1·2435	0·0146	—	100	
	'34-39	101·39	97·06	4·33	98·6340	1·3383	0·0277	—	100	
Hanover.....	1853	100·68	96·79	3·89	99·3638	0·5852	0·0510	—	100	
Saxony	1847-49	101·24	96·96	4·55	98·7698	1·2222	0·0076	0·0004	100	
Netherlands	1850-53	101·24	96·19	5·05	98·7671	1·2160	0·0167	0·0002	100	
Belgium.....	1841-50	100·94	96·71	4·23	99·0666	0·9234	0·0097	0·0003	100	

TABLE Q.—SWEDEN (1776-1855).—*Proportionate AGES of WOMEN
DELIVERED of CHILDREN.*

Years.	Proportionate Ages of every 100 Women Delivered.								Totals.
	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	Over 50.	
1855	1.12	12.64	25.68	28.88	20.50	9.90	1.26	0.02	100
'54	1.04	12.54	26.10	28.63	20.83	9.71	1.13	0.02	100
'53	1.03	12.97	26.70	28.52	20.15	9.41	1.20	0.02	100
'52	1.15	12.93	27.67	27.71	19.72	9.44	1.36	0.02	100
'51	1.08	13.32	28.34	27.40	19.33	9.18	1.33	0.02	100
1851-55	1.09	12.87	26.87	28.24	20.12	9.54	1.25	0.02	100
'46-50	1.13	14.12	27.51	27.02	19.37	9.37	1.46	0.02	100
'41-45	1.40	15.00	26.83	25.90	19.17	10.17	1.50	0.03	100
'36-40	1.44	14.93	25.95	25.50	20.18	10.40	1.57	0.03	100
'31-35	1.72	14.67	25.18	26.22	10.46	10.27	1.45	0.03	100
1826-30	1.78	14.85	25.73	26.69	19.87	9.51	1.54	0.03	100
'21-25	2.00	15.31	26.56	26.42	18.71	9.44	1.51	0.05	100
'16-20	2.12	15.98	26.37	25.46	19.22	9.31	1.49	0.05	100
'11-15	2.42	16.10	26.10	26.39	18.76	8.61	1.58	0.04	100
'06-10	2.36	15.75	27.04	25.50	18.10	9.36	1.84	0.05	100
1801-05	2.47	16.04	25.31	25.23	19.31	9.76	1.83	0.05	100
1796-1800	2.66	15.31	24.86	26.53	19.43	9.35	1.84	0.02	100
'91-95	2.60	14.84	25.54	26.22	19.43	9.51	1.83	0.03	100
'86-90	2.80	15.53	25.94	26.42	18.65	8.93	1.71	0.02	100
'81-85	3.06	15.80	26.96	25.86	18.20	8.32	1.77	0.03	100
1776-80	2.81	15.80	26.23	25.64	18.00	9.35	2.13	0.04	100
'80	3.11	15.63	26.78	25.98	17.73	8.79	1.94	0.04	100
'79	3.11	16.16	26.15	25.05	17.90	9.25	2.33	0.05	100
'78	2.53	15.60	26.60	26.21	17.84	9.22	1.96	0.04	100
'77	2.51	15.82	25.91	25.80	18.23	9.54	2.16	0.03	100
'76	2.73	15.80	25.67	25.15	18.22	10.09	2.28	0.06	100
Average	2.12	15.18	26.19	26.20	19.19	9.45	1.64	0.03	100
Country districts separately :									
1851-55	1.06	12.72	26.70	28.10	20.27	9.82	1.31	0.02	100
'46-50	1.13	14.05	27.25	26.86	19.52	9.65	1.52	0.02	100
Towns separately :									
1851-55	1.34	14.20	28.42	29.58	18.74	7.01	0.70	0.01	100
'46-50	1.10	14.78	30.03	28.62	17.91	6.75	0.80	0.01	100

TABLE R.—SWEDEN (1776-1855).—PROPORTION of the STILL-BORN to the Number of BIRTHS.

Countries.	Years.	One Still-born Child, to Born Alive.	Still-born to 100 Births.	Countries.	Years.	One Still-born Child, to Born Alive.	Still-born to 100 Births.
Sweden	1855	29·29	3·30	Norway	1846-55	23·5	4·08
	'54	30·14	3·21		'36-45	26·3	3·84
	'53	30·65	3·15	Denmark	1845-49	22·47	4·26
	'52	31·01	3·12		'35-44	21·92	4·36
	'51	29·65	3·26	Hanover	1853	24·84	3·87
	1851-55	30·12	3·21		1825-49	—	3·69
	'46-50	30·82	3·14	Prussia	1847-49	21·24	4·49
	'41-45	31·23	3·10		1844-51	31·26	3·09
	'36-40	32·11	3·02	Baden	1839-55	—	3·3
	'31-35	33·16	2·92		1848-53	—	4·97
	1826-30	36·83	2·65	Saxony.....	1841-50	22·87	4·18
	'21-25	37·90	2·57		1841-45	32·26	—
	'16-20	39·70	2·45	Belgium	'46-50	32·59	3·10
	'11-15	39·35	2·48		'51-54	25·70	3·79
	'06-10	39·72	2·45	France			
	'01-05	39·30	2·48				
	1796-1800	35·30	2·75				
	'91-95	33·44	2·90				
	'86-90	36·71	2·65				
	'81-85	34·84	2·79				
	'76-80	34·14	2·84				
Average	1776-1855	35·29	2·77				

TABLE S.—SWEDEN (1776-1855).—PROPORTION of DEATHS in CHILD BED to WOMEN DELIVERED.

Years.	Number of Deaths.	Deaths to 100 Deliveries.	Years.	Number of Deaths.	Deaths to 100 Deliveries.
1855	508	0·43	1821-25.....	3,226	0·67
'54	535	0·43	'16-20.....	3,170	0·73
'53	470	0·41	'11-15.....	3,181	0·79
'52	491	0·44	'06-10.....	3,294	0·89
'51	525	0·46	'01-05.....	2,923	0·78
1851-55.....	2,529	0·44	1796-1800.....	3,289	0·85
'46-50.....	2,343	0·44	'91-95.....	3,885	1·01
'41-45.....	2,289	0·44	'86-90.....	3,297	0·93
'36-40.....	2,438	0·51	'81-85.....	2,864	0·83
'31-35.....	2,743	0·57	'76-80.....	3,235	0·89
'26-30.....	3,184	0·66			

TABLE T.—SWEDEN (1751-1855).—DEATHS, and their *Proportion to Inhabitants, to Births, and to Sexes.*

Years.	Number of Deaths.	Number of Inhabitants to One Death.	Number of Deaths to 100 Inhabitants.	Children Born Alive, to 100 Deaths.	Deaths of Females to every 100 Deaths of Males.
1855	77,734	46·5	2·15	148	99·60
'54	70,846	50·3	1·98	169	96·76
'53	84,047	42·1	2·37	132	96·43
'52	80,090	43·9	2·27	135	93·68
'51	72,506	48·0	2·08	153	92·94
1851-55.....	385,223	46·1	2·17	146	95·87
'46-50.....	354,957	47·7	2·09	147	95·88
'41-45.....	325,654	49·3	2·03	154	94·91
'36-40.....	347,226	44·5	2·24	135	96·22
'31-35.....	339,331	43·8	2·28	140	96·48
1826-30.....	355,777	40·0	2·50	133	94·65
'21-25.....	294,594	45·2	2·21	162	95·07
'16-20.....	311,644	40·5	2·47	136	98·17
'11-15.....	327,395	37·0	2·70	121	97·83
'06-10.....	379,496	32·5	3·07	96	98·66
'01-05.....	290,176	40·9	2·44	128	99·92
1796-1800.....	298,492	39·3	2·54	131	98·65
'91-95.....	280,276	39·5	2·53	135	100·11
'86-90.....	298,450	36·5	2·74	117	95·12
'81-85.....	297,335	36·0	2·78	114	98·43
'76-80.....	256,872	40·4	2·47	139	101·39
1771-75.....	332,740	33·2	3·01	95	101·82
'66-70.....	263,811	37·8	2·64	128	101·50
'61-65.....	281,247	34·5	2·90	120	101·59
'56-60.....	264,301	35·6	2·81	123	103·67
'51-55.....	240,009	37·6	2·66	141	102·31
Average	—	39·9	2·50	130	98·49

Supplement to TABLE T.—DEATHS, and their *Proportion to Inhabitants, to Births, and to Sexes.*

Countries.	Years.	Number of Inhabitants to One Death.	Births (including Still- born) to 100 Deaths.	Deaths of Females to 100 Deaths of Males.
Norway	1826-35	54·1	164	98
	'36-45	55·7	156	96
	'46-55	55·64	175	97
Denmark	1835-44	45·20	142	95
	'45-49	44·13	141	95
Saxony	1840-49	33·25	135	94
Belgium.....	1841-50	44·02	125	101
France	1821-30	40·11	—	—
	'31-40	39·71	—	—
	'41-50	41·58	—	—
	'51-53	43·	—	—

Supplement to TABLE T.—DEATHS, and their Proportion to Births, &c.—
Contd.

Countries.	Years.	Number of Inhabitants to One Death.	Births (including Still- born) to 100 Deaths.	Deaths of Females to 100 Deaths of Males.
Prussia	1816-49	33·91	139 } born	94
	'52	30·38	121 } alive	101
Bavaria	1836-44	33·45	119	95
	'45-51	—	123	96
Austria	1830-47	30·43	—	—
Hanover	1853	43·11	134 born alive	99
Baden	1830-55	34·26	—	95
Wurtemberg	1843-52	31·78	—	95
England	1838-52	45·	—	—
Netherlands	1840-49	35·6	—	95
	'50-53	40·4	144	96

TABLE U.—SWEDEN (1846-50).—Proportion of DEATHS to INHABITANTS
and to BIRTHS.

Provinces.	1851 to 1855.			1846 to 1850.		
	Average Deaths to 100 Inhabi- tants.	Born Alive to 100 Deaths.	Deaths of Females to 100 Deaths of Males.	Average Deaths to 100 Inhabi- tants.	Born Alive to 100 Deaths.	Deaths of Females to 100 Deaths of Males.
Stockholm	2·40	121	89·13	2·60	104	92·28
Upsala	2·20	124	104·01	2·21	119	103·24
Södermanland	1·13	149	92·75	2·25	123	96·73
Östergöthland	2·13	143	98·02	2·14	138	97·38
Jönköpings	1·99	153	101·87	1·79	165	96·27
Kronoberg	1·86	179	100·21	1·87	170	99·97
Calmar	2·16	151	96·81	2·41	130	97·08
Gotlands	1·83	138	97·51	1·49	121	96·77
Blekinge	2·63	129	95·89	2·41	136	93·80
Christianstad	2·05	158	96·95	1·88	174	98·59
Malmöhus	2·03	165	95·62	1·93	171	93·49
Halland	2·01	155	92·91	2·05	147	95·55
Göteborg and Bohus	2·46	130	91·34	2·23	139	94·41
Elfsborg	2·21	145	98·91	1·95	160	95·84
Skaraborg	2·24	148	94·42	2·07	157	96·71
Wernmland	2·05	160	93·04	1·87	169	95·49
Nerike	2·07	155	97·23	2·06	155	95·82
Westmanland	2·26	125	101·74	2·30	122	102·77
Kopparberg	1·97	155	94·44	1·99	148	97·87
Gefleborg	1·91	145	94·91	1·76	149	95·38
Wester-Norrland	1·82	178	94·11	1·81	170	95·05
Jemtland	1·38	191	101·40	1·29	194	97·42
Westerbotten	1·65	217	96·39	1·44	245	84·79
Norrbotten	2·14	175	100·06	1·79	198	98·97
Stockholm city	4·46	76	91·73	3·85	83	88·15
Rural districts	2·03	156	96·24	1·99	155	96·65
Towns	3·31	93	93·92	2·98	98	91·35

Supplement to TABLE W.—DEATHS in other Countries Distributed according to Months.

Months.	Out of 100 Deaths, there occurred in the following Months:—							
	Norway.		Denmark.		Prussia.	Saxony.	Belgium.	France.
	1837 to 1845.	1846 to 1855.	1835 to 1839.	1840 to 1849.	1816 to 1849.	1834 to 1849.	1841 to 1850.	1853.
January	9·5	10·0	9·97	9·36	28·34	8·92	10·44	8·57
February	8·7	8·8	10·29	9·78		8·43	10·12	10·12
March	9·9	9·7	10·31	10·39		9·21	10·07	10·94
April	9·7	9·7	10·73	10·48	23·93	8·93	9·47	9·98
May	9·6	9·6	9·98	9·49		8·57	8·55	8·47
June	8·4	7·8	8·49	8·17		7·50	7·97	7·60
July	7·3	7·2	7·05	7·15	22·84	7·65	7·11	6·97
August	6·8	7·1	6·09	6·53		8·30	6·99	7·19
September	6·6	7·3	5·78	6·19		8·28	7·22	7·49
October	7·2	7·5	6·15	6·85	24·88	8·00	6·92	7·02
November	7·5	7·5	7·26	7·52		7·83	7·04	7·00
December	8·8	7·8	7·90	8·09		8·29	8·10	8·65
Total.....	100	100	100	100	—	100	100	100

TABLE Y.—SWEDEN (1776-1855).—DEATHS *from* ACCIDENTAL CAUSES.

Years.	Drowned.			Proportion per Cent. of Drowned to Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
1855	693	124	817	1·78	0·32	1·05
'54	862	122	984	2·39	0·35	1·39
'53	883	135	1,018	2·06	0·33	1·21
'52	1,251	238	1,489	3·03	0·61	1·86
'51	1,074	183	1,257	2·86	0·56	1·73
1851-55.....	4,763	802	5,565	2·42	0·43	1·44
'46-50.....	4,639	885	5,524	2·56	0·51	1·56
'41-45.....	4,857	842	5,699	2·91	0·53	1·75
'36-40.....	3,987	755	4,742	2·25	0·44	1·37
'31-35.....	4,403	846	5,249	2·55	0·51	1·55
1826-30.....	4,393	784	5,177	2·40	0·45	1·46
'21-25.....	4,743	886	5,629	3·14	0·62	1·91
'16-20.....	3,498	750	4,248	2·22	0·49	1·36
'11-15.....	3,209	679	3,888	1·94	0·42	1·19
'06-10.....	3,001	574	3,575	1·57	0·30	0·94
'01-05.....	2,771	593	3,364	1·91	0·41	1·16
1796-1800....	2,765	553	3,318	1·84	0·37	1·11
'91-95.....	2,544	557	3,101	1·82	0·40	1·11
'86-90.....	2,260	597	2,857	1·48	0·41	0·96
'91-85.....	2,094	565	2,659	1·40	0·38	0·89
'76-80.....	1,792	436	2,228	1·40	0·34	0·87
Norway— 1836-55.....	—	—	—	—	—	2·85

Years.	Suffocated from the Fumes of Charcoal.			Destroyed by Lightning.			Hydrophobia.		
	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.	Males.	Fe- males.	Total.
1855	24	12	36	16	9	25	—	2	2
'54	33	5	38	4	1	5	4	1	5
'53	25	7	32	4	4	8	2	1	3
'52	30	12	42	8	7	15	1	—	1
'51	33	9	42	7	2	9	—	—	—
1851-55.....	145	45	190	39	23	62	7	4	11
'46-50.....	121	45	166	28	28	56	4	1	5
'41-45.....	115	43	158	29	14	43	6	—	6
'36-40.....	107	45	152	32	12	44	2	3	5
'31-35.....	88	30	118	34	26	60	1	2	3
1826-30.....	123	48	171	27	13	40	12	12	24
'21-25.....	95	71	166	17	12	29	11	12	23
'16-20.....	82	60	142	33	34	67	27	20	47
'11-15.....	98	43	141	42	24	66	15	9	24
'06-10.....	106	71	177	39	17	56	18	20	38
'01-05.....	65	56	121	67	22	89	19	34	53
1796-1800....	69	34	103	24	16	40	13	21	34
'91-95.....	66	41	107	12	12	24	13	20	33
'86-90.....	59	46	105	21	19	40	34	35	69
'81-85.....	68	36	104	19	7	26	24	21	45
'76-80.....	48	31	79	24	13	37	20	20	40

TABLE Z.—SWEDEN (1749-1855).—*Proportion of DEATHS from Small-pox, and Typhus Fever, and of Vaccinated to Children Born Alive.*

Years.	Number of <i>Deaths from Small-pox.</i>	Per Cent. of <i>Total Deaths.</i>	Number of <i>Vaccinated.</i>	Percentage of <i>Vaccinated to Children Born Alive.</i>	Number of <i>Deaths from Typhus and Typhoid Fever.</i>	Percentage of <i>last column to Total Deaths.</i>
1855	41	0·05	95,493	83	—	—
'54	204	0·29	95,498	80	—	—
'53	279	0·33	83,258	75	—	—
'52	1,534	1·91	86,130	80	—	—
'51	2,488	3·43	97,277	88	—	—
1851-55	4,546	1·18	457,656	81	—	—
'46-50	1,803	0·51	413,445	79	—	—
'41-45	316	0·09	363,286	74	—	—
'36-40	4,888	1·41	353,792	77	—	—
'31-35	3,873	1·14	340,721	73	—	—
1826-30	1,639	0·46	314,860	68	39,629	11·14
'21-25	1,948	0·66	345,114	74	23,025	7·82
'16-20	1,541	0·49	289,797	70	29,825	9·57
'11-15	2,429	0·74	175,632	44	32,629	9·97
'06-10	8,653	2·28	93,595	25	58,135	15·32
'01-05	11,604	3·99	47,258	13	30,376	10·47
1796-1800	23,381	7·83	—	—	23,513	7·88
'91-95	17,847	6·37	—	—	26,504	9·46
'86-90	20,561	6·89	—	—	44,981	15·07
'81-85	25,412	8·55	—	—	27,926	9·39
'76-80	28,529	11·11	—	—	21,487	8·36
1771-75	25,267	7·59	—	—	48,833	14·68
'66-70	34,361	13·02	—	—	23,685	8·98
'61-65	36,041	12·81	—	—	32,587	11·59
'56-60	32,681	12·37	—	—	26,140	9·89
'51-55	35,415	14·76	—	—	16,495	6·87
1750	6,180	12·98	—	—	3,581	7·52
'49	4,453	8·99	—	—	3,948	7·97

On PRISON STATISTICS and DISCIPLINE in LOWER BENGAL. By
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CONTENTS

	PAGE		PAGE
I.—Prison Discipline in Bengal : Past and Present	175	V.—Sickness and Mortality of Prisoners in the Lower Provinces /	194
II.—Nature and Extent of the Statistical Information con- tained in the Bengal Prison Returns	180	VI.—Labour, in its Penal, Pecuniary, and Reformatory relations	206
III.—Prisoners in Custody and their Disposal in 1858-59, and 1859-60	183	VII.—Cost of Prisoners in Bengal	211
IV.—Bengal Prison Dietaries, Past and Present; their Nature and Cost	186	VIII.—Escapes and Reapprehen- sions	215
		IX.—Education of Prisoners in Bengal.....	215
		X.—Concluding Remarks	217

I.—*Prison Discipline in Bengal : Past and Present.*

It was originally my intention to have submitted to the Statistical Society a review of the whole subject of prison discipline in Bengal, illustrated by such of the statistics of prison management in that Presidency, as are essential to its complete discussion and treatment. I find, however, that it is impossible to condense the various topics that would demand consideration within moderate and reasonable compass. The vast extent of territory subject to the Government of Bengal, with the many different races by which it is inhabited, numbering little, if at all, less than between forty and fifty millions of people, produce, as might be expected, striking differences in the moral and material effects of imprisonment, which are deserving of careful inquiry. Very much of the discussion would, however, relate to subjects that are now considered to belong to the somewhat vague and unsatisfactory domain of social science. I shall, therefore, for the present, content myself with the briefest possible general statement of the system of discipline and management, past and present, in the prisons of Bengal, and shall then proceed to detail the results that have been obtained in some of the more im-

portant branches of prison statistics, particularly since this section of the judicial administration of the lower provinces has been under my charge.

Prior to 1838 the prisons of Bengal were under the immediate control of the magistrates, subject to the supervision of the judges and commissioners of circuit, acting under the orders of the Nizamut Adawlut of Calcutta.

The state of prison discipline at that time was found, on inquiry, to be very nearly that of the second stage of prison reform in England. Attention was paid to the physical condition of the inmates of gaols; cleanliness was enjoined, and to a certain extent, observed; the sick were provided with medical care and treatment; the provision of food and clothing was regulated by some degree of system; and in all details of internal economy there were none of the scandalous shortcomings found by Howard in the prisons of Great Britain. The two sexes were never intermixed in the same wards; the untried were separated from the tried; debtors were not associated with criminals; and the prisons were never hot-beds of disease and dens of pollution, from disregard of the commonest dictates of humanity. At no time in their history were the inmates compelled to bribe their gaolers to obtain the bare necessities and decencies of life.

In all these particulars the action of the Government of India, and of the Court of Directors of the late East India Company, were, at an early period, in advance of public opinion and practice at home.

There was in each zillah or county a district gaol, in which all persons accused and convicted of crime were confined. The magistrate was only required by law to visit his gaol once a week. Few saw it as often, and it was unentered for months by all when absent on circuit in their districts. The real charge of the prisoners was in the hands of the gaolers, an ill paid class of native functionaries, who lived by peculation and the sale of forbidden indulgences. In such circumstances discipline was of necessity lax, and imprisonment as an instrument of punishment of more than doubtful efficacy. The prisons obtained the sobriquet of the father-in-law's house, in which comfortable board, with tolerable lodging, combined with a moderate and purchasable amount of personal restraint, were enjoyed at the public expense.

In the year above-mentioned (1838), the Bengal Prison Discipline Committee, which had been appointed to consider the whole subject of gaol management and discipline in India—of which Lord Macaulay was a member, and the present Lieutenant-Governor of Bengal, the Hon. Sir J. P. Grant, K.C.B., the secretary—recommended the establishment of central penitentiaries in the centre of every seven or eight districts. They were to be under the management of keepers—

European or native — on salaries sufficiently ample to secure the services of honest impartial men, of “good temper, sound judgment, coolness, energy, and courage.”

These penitentiaries were to be provided with solitary and sleeping cells, and to be furnished with tread-wheels, cranks, and similar mechanical devices for the introduction of hard, wearisome, monotonous, uninteresting labour. In them were to be incarcerated all prisoners sentenced for more than one year to solitary confinement or hard labour.

The strictest silence was to be enforced day and night, at work and at meals. Cooked rations were to be provided for each prisoner, to be eaten in solitude in his sleeping cell. If work at trades were to be permitted, which the Committee deemed undesirable, the same strict silence was, as far as practicable, to be enforced.

The punishments for breaches of prison rules were to be solitude in darkness, and privation of food. If experience should prove whipping to be indispensable, it was to be authorized, under strict rules to prevent abuse, but not otherwise. The Committee did not think that such punishment would be necessary.

The existing district gaols were to be extended so as to furnish the means of separating different classes of offenders by day and by night. They were to serve as houses of correction for all prisoners sentenced to solitary confinement, or to imprisonment with hard labour, for terms not exceeding one year. They were likewise to be used for the confinement of prisoners sentenced to simple imprisonment without labour; for the safe custody of untried persons; and to contain a separate compartment for debtors, in all places that were unprovided with a civil gaol. All the different compartments were to be entirely separated from each other, and to be subdivided to such extent as to provide for the system of classification recommended by the Committee. The plan of work to be introduced was laid down, and special provision was made for the accommodation of the few prisoners of European habits who were likely to be sentenced to simple imprisonment.

The compartment for untried prisoners was to be arranged so as to afford to each prisoner, if he wished it, “a small apartment to himself, with a court to which he may have access; or the means of living with those prisoners only to whose society he may feel no repugnance, and from whose society there may be no reason to fear ill consequences to himself.”

The reasons for this most just and humane measure were detailed, together with the system of labour, discipline, and feeding that were to be observed.

Lastly, the appointment of a special inspector of prisons for the provinces under the jurisdiction of each local government was

advised, to secure the good and uniform working of any general system of prison discipline.

Of the above recommendations, the only one that has been fully carried into effect in Lower Bengal has been the last mentioned.

By Act XVIII of 1844, the whole control and superintendence of the prisons of Bengal was vested in the magistrates and joint magistrates acting under the instructions of the sessions judges; and in all matters relating to the gaols, the prisoners confined in them, the establishments belonging to them, and the places of banishment and transportation of prisoners, those officers were to be guided by the instructions of the local government. The gaols were thus taken from under the control of the Nizamut Adawlut.

In 1853 the first prison inspector was appointed in Bengal. The office was stated to have been instituted for the purpose of assisting in the introduction of a stricter system of classification, management, and discipline; to check all unnecessary expenditure, and render the labour of the convicts as productive and remunerative as possible; and to employ to the best purpose the sums sanctioned for the construction of new prisons, or the repairs and alterations of old ones. The appointment was not intended to alter the existing system, which vested the immediate supervision of prisons in the sessions judges and the commissioners of the non-regulation provinces.

The inspector was authorized to sanction any item of expenditure for an object of permanent utility, to an extent not exceeding 50*l.*, and to raise the allowance for gaol manufactures as much as might be required. All his proceedings and orders were reported to the Government for information, and when necessary, for sanction. His jurisdiction was limited to the gaols in the regulation provinces, the three northern districts of the south-western frontier agency, Darjeeling, Cachar, and the Kasial Hills.

In November, 1855, the office was placed under my charge. In 1856 the gaols in Assam, Aracan, and the two southern divisions of the Chota Nagpore agency were added to the jurisdiction of the inspector. In 1857 the powers and duties of the office were considerably extended. The entire control of the department, in all save the medical care and treatment of the sick, was vested in the inspector, acting under the immediate orders of the Government. The disposal of prisoners sentenced to banishment and transportation, the release of prisoners labouring under incurable bodily infirmities, the revision of all orders passed by the magistrates regarding the appointment, punishment, and removal of officers on their gaol establishments, the sanctioning of rewards for the capture of escaped prisoners, the full and sole control over all prison expenditure, and the general management of the department, now form the duties and responsibilities of the officer in question. All his proceedings are

reported to the Government for information, and for sanction in such matters as he is not competent to dispose of under the rules and regulations in force. The duties of the sessions' judges are limited to visitation. The inspector is armed with the powers of a magistrate in every prison in his jurisdiction.

The rules for the management of the prisons in Bengal are contained in various acts, regulations, and circular orders. They have not yet been embodied in a regular prison code.

The only other result of the recommendations of the Prison Discipline Committee was the establishment of a penitentiary at Deegah, near Patna, and of a prison to which the name of penitentiary was attached, at Hazareebaugh. The former was abandoned, after a few years' trial, from its extreme unhealthiness. As a place of punishment it was much dreaded. Its failure was entirely due to mismanagement, improper construction of buildings, and defective arrangements generally. The prison at Hazareebaugh was destroyed during the mutiny, and was utterly undeserving the name of a penitentiary. Beyond the employment of the convicts in handicrafts, no provision was made in it to carry out the recommendations of the Prison Discipline Committee.

The only prison now existing in Lower Bengal that approaches the character of a penitentiary is the Alipore gaol, which contains an average of from 1,200 to 1,500 prisoners, and in which the industrial occupation of the convicts has been carried to a high pitch of successful development. In no other respect is it, however, entitled to be classed with such institutions as the Millbank and Pentonville prisons, or the Mountjoy prison in Dublin. It is under the charge of an officer who is magistrate of the district in which it is placed, and who has not time to regulate its internal economy, or to make himself acquainted with the thousand minute circumstances that afford ample occupation for the whole time of experienced prison governors in Europe, who reside in their gaols, and have no other duties to perform. It is defective in construction, security being its chief and only merit, and affords none of the facilities for the introduction of such a system of discipline as was recommended by the Bengal Committee, and is now successfully carried out in all the central prisons of Great Britain.

The other prisons, under the charge of the inspector, are fifty-three in number, and with the exception of the Crown gaols in Calcutta, and four or five small prisons in the Sonthal Pergunnahs, which are not under the control of that officer, include all places in the lower provinces devoted to the safe custody and punishment of criminals. To many of the zillah gaols, which are equivalent to the county prisons of England, are attached small subdivision lock-ups for the safe custody of persons accused of crime in the subdivisions,

provided with deputy magistrates, prior to their transfer to the zillah sessions' courts for trial. They usually contain from ten to thirty inmates, and are now about fifty in number.

The prisons of the lower provinces are arranged in divisions, which usually correspond with the circles of the revenue department.

They are enumerated below.

REGULATION PROVINCES.

1. PATNA DIVISION.	Rungpore.	6. NUDDEAL DIVISION.
Patna.	Bograh.	Nuddeah.
Sarun.	Dinagepore.	Alipore.
Behar.	Maldah.	Baraset.
Shahabad.	Moorshedabad.	Jessore.
Chumparun.		
Tirhoot.	4. DACCA DIVISION.	7. BURDWAN DIVISION.
	Dacca.	Burdwan.
2. BHAUGULPORE	Furreedpore.	Hooghly.
DIVISION.	Sylhet.	Howrah.
Bhaugulpore.	Mymensing.	Bancoorah.
Monghyr.	Backergunge.	Beerbhoom.
Purneah.		Midnapore.
	5. CHITTAGONG	
3. RAJSHAHYE	DIVISION.	8. CUTTACK DIVISION.
DIVISION.	Chittagong.	Cuttack.
Rajshahye.	Tipperah.	Balasure.
Pubna.	Noakholly.	Pooree.

NON-REGULATION PROVINCES.

9. CHOTA NAGPORE	10. ARACAN DIVISION.	Nowgong.
DIVISION.	Akyab.	Seesaugor.
Hazarechaugh.	Ramree.	Durrung.
Lohardugga.	Sandoway.	Debrooghur.
Maunbhoom.		Kassiah Hills.
Singbhoom.	11. ASSAM DIVISION.	12.
Sumbulpore.	Gowalparah.	Cachar.
	Kamroop.	Darjeeling.

All of the above are places of detention as well as of punishment.

II.—*Nature and Extent of the Statistical Information contained in the Bengal Prison Returns.*

The only other topic on which I shall touch, before submitting to the meeting a few statistical facts concerning the prisons of Lower Bengal, has reference to the nature and extent of the statistical information required and obtained from the officers serving under me.

When the control of the prison department came into my hands, I found that the returns submitted to the Government were not only defective in many important particulars, but that the different statements were for different periods, some monthly, some quarterly, some half-yearly, and some annual ; and of the latter, part were for the official, and part for the calendar year. There was an absence of harmony in the whole working of the system in force which rendered it impossible to extract any sound conclusions from data so diverse, few of which could stand the test of strict scrutiny.

My first care was to devise a scheme of returns that would embody the chief facts of interest connected with each prison, in the easiest manner consistent with accuracy. I adopted the form of monthly returns, abolishing all others, after consultation with the officers concerned, and with the sanction of the Government.

The advantage of the monthly plan in India consists in the fact, that as all accounts and expenditure are adjusted monthly, all calculations must be brought up to that period for the audit of bills. The period itself is short, and well defined, and as the calculations are not extended over an extraordinary length of time, great accuracy can be secured with comparatively little expenditure of time and trouble.

The forms to be filled in are printed and sent from my office. They embrace the following points: the disposal of the whole number of persons in the prisons, tried and untried ; their distribution in wards and hospitals ; the number admitted during the month ; discharged by expiry of sentence ; released from any other cause ; escaped, executed, or dead ; their religion, caste, occupation prior to imprisonment, and state of education prior to admission. The mortality register contains the name, age, caste, birthplace, crime, and sentence, date and length of imprisonment, time of sentence unexpired, and disease or accident which had caused a fatal result. The statistics of cost are obtained from the monthly bills, in which all items are carefully accounted for. The whole are scrutinized and verified in my office, all errors detected being immediately corrected.

I find on referring to the proceedings of the International Statistical Congress held in London in 1860, under the presidency of His late Royal Highness the Prince Consort, that my records are still deficient in one or two points, considered of sufficient importance to place on permanent record. These I hope to be able to obtain hereafter.

I should not have dwelt on these matters in a paper addressed to an association, by which the value of all statistical details necessary to illustrate so important a branch of judicial administration is fully recognised, were it not that the necessity and interest of such infor-

mation have recently been denied by some authorities in India, where I had to defend myself from the charge of devoting much time and trouble to the accumulation of useless facts and figures. I am glad, therefore, to be armed with the high authority of the International Congress in their resolution on the subject of prison statistics. I quote this resolution in the margin,* because it is buried in a big book which is not generally accessible abroad, as I failed to procure a copy of it in Calcutta last year. My system of returns has now been in operation for four years; they are generally well understood by the officers in charge of the prisons; the difficulties connected with their introduction have all been overcome, and I have every reason to believe that the results obtained are correct and trustworthy.

Little that is accurate and reliable is known of India statistically. To so small an extent has the numerical method been applied to the investigation of the social condition and material progress of that great empire, that it seems to me to be additionally incumbent on all officers employed in the country, to omit no opportunity of collecting and recording such facts and observations in their respective departments, as will, in the words of the first resolution adopted by the last Statistical Congress, “afford valuable materials whereby to institute “wise and permanent legal reforms, and furnish information of great “importance, illustrative of the social and moral wants of the “people.”

The following are the points on which I now submit such statistical details as I have been able to glean regarding prison management in Lower Bengal, viz.: 1. the number of prisoners in custody, and their disposal in 1859-60; 2. the dietary; 3. sickness, and mortality; 4. labour, and the means used for reformation by teaching of trades; 5. cost; 6. escapes and recaptures, and 7. education previous to imprisonment of the inmates of the goals under my charge.

* Resolution 13, Section Judicial Statistics.—“That the prison statistics should “exhibit the number of prisons, distinguishing those where persons are detained “from those where convicts are subject to punishment; the system, discipline, and “accommodation in each prison; the number of prisoners entered and disposed of “according to their age, sex, place of birth, trade or occupation, crime and punish- “ment; the number of recommittals in the respective prisons; the dietary and “the state of health, viz., the rate of mortality, number of cases of suicide and “insanity, the amount and value of work performed by, and the means used for “the reformation of prisoners by instruction, by lectures, by teaching of trades, “and other industrial occupations, and the results; the cost of the prisons; the “number of prison offences, and how punished; the escapes and attempts to escape; “the number released previous to the expiration of sentence, by licence or other- “wise, in relation to the crimes they had committed and the amount of punish- “men they had undergone.”

III.—Prisoners in Custody and their Disposal in 1858-59 and 1859-60.

The number of prisoners of all classes in custody in the fifty-four prisons above-mentioned, was in 1859-60, 71,467, against 75,141 of the previous year, viz. :—

		1858-59.	1859-60.
Number in Gaol on the 30th April.....	{ Males	21,024	18,782
	{ Females	588	617
		21,612	19,399
Number admitted during the year	{ Males	53,101	30,715
	{ Females	428	1,353
		53,529	52,068
Total.....		75,141	71,467

Showing in the latter year a decrease in the whole number of males accused of crime with a large increase in the number of females. Although the cost of food, and of other necessities of life, had continued to rise in Bengal, wages had increased in a corresponding ratio, so that high prices had not produced the want and misery that usually accompany them, and are among the fruitful sources of crime.

Disposal of the above.	1858-59.	1859-60.		
		Males.	Females.	
Of the above there were—				
Transferred to other districts	11,736	12,341	260	12,601
Released	39,974	36,012	999	37,011
Escaped	1,447	255	4	259
Died.....	2,440	2,444	55	2,499
Executed	145	70	6	76
Remaining in Gaol on the 30th April	19,399	18,375	646	19,021
Total.....	75,141	69,497	1,970	71,467

Particulars of Prisoners Admitted during the Two Years.	1858-59.	1859-60.
Committed to gaol by orders of the magisterial authorities	35,868	39,862
Committed to gaol by the civil, revenue, and excise authorities	1,807	1,353
Committed to gaol under sentence of courts-martial ..	140	223
Committed to gaol under special orders of the Government for reasons of State	23	178
Recaptured after escape	997	264
Transferred from one district to another for trial	968	1,624
Transferred from one district to another for banishment	2,226	914
Transferred from one district to another for transportation	1,701	988
Transferred from one district to another for benefit of health	15	442
Transferred from one district to another for release ..	219	361
Transferred from one district to another for special reasons	148	912
Transferred from one district to another after recapture	40	50
Transferred from subdivision lock-ups to Sudder Gaols	—	4,324
Kept in gaol while on the way from one district to another	588	573
Number confined in subdivision lock-ups	8,789	—
Total	53,529	52,068

The prisoners in the subdivision lock-ups were incorporated in the returns of the Sudder Gaols in 1859-60.

Particulars of the Transfers.	1858-59.	1859-60.
Transferred from one district to another for trial	2,165	1,061
Transferred from one district to another for banishment	902	780
Transferred from one district to another for transportation	2,261	1,693
Transferred from one district to another for benefit of health	53	84
Transferred from one district to another for release ..	354	620
Transferred from one district to another for special reasons	758	1,777
Transferred from one district to another after recapture	135	14
Transferred to lunatic asylums	191	106
Transferred from subdivision lock-ups to Sudder Gaols	4,181	5,982
Kept in gaol while in transit from one district to another	736	475
	11,736	12,601

The transfers for special reasons were chiefly to relieve over-

crowded and sickly prisons. The lunatics were not criminals, but insane persons picked up by the police, or sent by their relatives for safe custody to the gaol, pending their transfer, after due inquiry and under proper authority, to the nearest lunatic asylum.

Particulars of the Prisoners Released.	1858-58.	1859-60.
Acquitted after trial by the magisterial authorities ...	12,479	14,360
,, sessions judges	1,893	1,780
,, Sudder Court	239	159
Liberated by order of Government	141	163
Released on expiry of sentence	19,054	18,988
,, payment of debts, &c.	1,542	1,311
,, for good conduct	53	15
,, on account of extreme sickness.....	113	289
,, from subdivision lock-ups.....	4,460	—
Total	39,974	37,065

The convicts released on account of extreme sickness were short term misdemeanants, whose sentences had nearly expired, and whose only chance of life was in being removed from sickly prisons, in most of which virulent epidemics prevailed at the time. Many of them were in the last stage of phthisis or pulmonary consumption, and were suffering from that disease when imprisoned.

Disposal of the Prisoners (28,982) convicted in the Year 1859-60.

	Males.	Females.	Totals.
<i>Criminals.</i>			
Sentenced for life, with labour	812	38	851
,, ,, without labour	1	0	
,, more than two years, with labour	4,123	31	4,205
,, ,, without labour	50	1	
,, 2 years and above 1 year, with labour	2,291	35	2,716
,, ,, without labour	373	17	
,, 1 year and under, with labour	10,057	267	18,429
,, ,, without labour	7,957	148	
To be confined until security be given, with labour ...	273	2	408
,, ,, without labour	129	4	
To be discharged, without security, after a limited } period, with labour	714	10	753
To be discharged, without security, after a limited } period, without labour	28	1	
Total	26,808	554	27,362

Disposal of the Prisoners, &c.—Contd.

	Males.	Females.	Totals.
<i>Civil Prisoners (including Debtors, Revenue Defaulters, &c.)</i>			
Under 1 month's imprisonment.....	944	22	966
Of 1 and under 2 months	275	—	275
„ 3 „ 6 „	58	1	59
„ 6 „ 12 „	38	—	38
Above 1 and less than 2 years	1	—	1
„ 2 „ 3 „	58	2	60
Above 3 years.....	4	—	4
	1,378	25	1,403
State prisoners	22	—	22
Agency prisoners, S.W. Frontier	96	—	96
<i>Gang Robbers.</i>			
Committed by the commissioner for the suppression of Dacoity	97	2	99
Total convicted.....	28,401	581	28,982

To the English reader explanation is required of some of the points contained in the above enumeration. They are, however, connected with the judicial system of Bengal, and to discuss or detail them is foreign to the purpose of this paper.

IV.—*Bengal Prison Dietaries, past and present; their Nature and Cost.*

The diet of prisoners in the gaols of the Lower Provinces has long been a vexed question, and is not yet determined. Prior to 1836 a certain money allowance was furnished to each prisoner, with which he purchased the food he preferred from shopkeepers, who were allowed access to the gaols. This allowance varied in the lower provinces from about three-farthings to a penny and a half a-day, the average allowance being somewhat under a penny a head. The price of food was so low at the time that the criminals not only fared more sumptuously than agricultural labourers, but were able to save a portion of their allowance to remit to their families, to bribe their guards, or to form a purse for themselves when liberated. The disadvantages of such a system, and the superior efficacy of a regular plan of rations were pointed out by the Bengal Prison Discipline Committee of 1838. Accordingly the ration system was adopted, and a tentative scale was introduced, consisting of two

pounds of dry rice, a pound of wood for cooking, and a small quantity of tobacco, which were issued daily. This scale was allowed to be worked with a considerable margin, until experience should determine a fit standard. A portion of the rice was permitted to be exchanged for a suitable supply of condiments.

It was felt, even at this early period of inquiry into the matter, that in a country where honest labourers are compelled to live upon a coarse variety of food just sufficient to maintain health and strength, and very often even below that standard, the difficulty, amounting to impossibility, would be experienced, of so feeding a prisoner, to keep him in health, as that he should not fare better than the class to which he belonged in a state of freedom from crime.

The scheme proposed did not, however, work well, from being imperfectly understood, and not fully carried out. Accordingly, a few years later, in 1840, a further inquiry was instituted as to the extent to which the ration system had been introduced; the prisoners who were exempt from it, with the reasons of their exemption; the numbers who were messed together; the articles of food allowed; the extent to which the health of the prisoners had been affected by the measure; and the means by which the system could be improved.

The answers of the officers consulted showed that the ration system had very generally superseded the money allowances; that no prisoners were exempt from it; that the plan of messing had not been so generally introduced; and that on the whole the plan had worked well. A few simple rules were introduced to cause the plan to be worked with regularity, and to allow a small increase of food in such cases as were certified by the medical officer to require it. Arrangements were also made to vary the food, vegetables, fish, and meat being united with the rice on alternate days. The food was purchased by contract, and examined as to its wholesomeness by the medical officers in charge of the prisons.

Objections were raised, chiefly by the medical officers, to the sufficiency of the food for the maintenance of health, a large amount of prison disease being attributed to the dietary. In consequence of these objections, after consulting the Medical Board, in 1843, an increased scale of rations was adopted, and two cooked meals were allowed daily. The majority of the labouring population, and all indigent classes, have in Lower Bengal but one cooked meal daily, the morning meal usually consisting of dry, or cold food saved from the dinner of the previous day.

The new scale allowed 32 ounces of food daily to non-labouring convicts, and 45 ounces to convicts sentenced to labour. The dietary of the former was composed of 22 ounces of rice, 6 ounces of dhal, 2 ounces of fresh vegetables, half an ounce of clarified butter, 1 ounce of salt, and 1 ounce of condiments. The scale for working

convicts was the same in regard to salt and condiments, but granted a more liberal allowance of rice, a small increase of ghee or clarified butter, and on alternate days 8 ounces of fish or flesh, with every day 4 ounces of vegetables. On the fish and flesh days, the quantity of rice issued was 26 ounces; on the other days 28 ounces. Dhal was given to the extent of 6 ounces on the days when neither meat nor fish were allowed. Prisoners from the upper provinces were allowed wheaten flour instead of rice, and the amount of firewood was increased to 3 pounds weight daily. Tobacco was still continued

This scale was soon suspected to be too liberal, and the cost of food was so much increased by it, that inquiry was again set on foot to reduce all superfluities, and to fix a more moderate and appropriate scale. The result of the inquiry seemed to show that the convicts were much better fed than the free population of the same classes; that they could not consume the whole of the allowance, and bartered the excess for forbidden indulgences; and that the very liberal dietary neutralized much of the deterring effects of imprisonment by rendering the prison popular in times of distress, and thus acting as a premium to crime.

A new scale was adopted, reducing the food of non-labouring convicts to $31\frac{1}{2}$ ounces, and that of labouring convicts to $35\frac{1}{2}$ ounces.

This scale was introduced in 1851; it was intended to be tentative, and reports were directed to be sent in in three months, as to the results of the measures. These reports were all in favour of the new scale, which accordingly continued in use for some years, and is, in fact, still in use in the Lower Provinces. In 1857, however, a fresh inquiry was directed to be instituted, in consequence of the great mortality in some prisons, which was attributed by medical officers to the insufficiency of the food. Diarrhœa, dysentery, and scurvy were supposed to be the diseases so caused.

The preponderance of evidence collected by the last inquiry tended to show that the existing diet scale is in excess of that of the poorer classes who form the bulk of the prisoners; that, with very few exceptions, it closely assimilates to that of the outside labouring population; that in quality it is generally superior; that in several of the prisons it caused a higher standard of health than is enjoyed by the free population of the same classes; that in some of the gaols, the admissions and deaths from diseases associated with defective nutrition are so low, as to show that they could not have been influenced by the dietary; that in those gaols where diarrhœa and dysentery were most fatal and prevalent, other causes were in active operation that probably exerted more influence in the production of those zymotic diseases than the food; that the defects in the

dietary were rather in the absence of variety, than in the quantity or quality of the rations, and that any modifications which it might be deemed desirable to introduce should be in the direction above indicated.

Fifteen years were selected for the inquiry,—five during the existence of the money plan of purchase of food by the prisoners themselves,—five during the trial of the 32 and 45-ounce scale, and five during the present or 31½ and 35-ounce scale. The diseases investigated were dysentery, diarrhœa, scurvy, phthisis, and cholera, as those most likely to be influenced by the food.

In the first five years from 1839-43, the labour of the convicts was partly out-door and partly in-door. The average cubical space for each prisoner was 356 feet, and the food was purchased by the convicts from the money allowance. The average number in custody was 52,763. The admissions and deaths were as follow:—

	1	2	3	4
	Admissions.	Deaths.	Ratio per Cent. to Strength.	Ratio per Cent. to Admissions.
Dysentery	6,872	1,070	2·02	15·57
Diarrhœa	6,359	671	1·27	10·55
Scurvy	160	2	0·003	1·25
Phthisis	62	34	0·06	54·83
Cholera	3,030	1,269	2·40	41·88

In the second, 1844-48, with labour as before, but the in-door work including various manufactures; the mean average of space 365 cubic feet, the Medical Board diet-scale, and the average number of prisoners, 70,041, the results were:—

	1	2	3	4
	Admissions.	Deaths.	Ratio per Cent. to Strength.	Ratio per Cent. to Admissions.
Dysentery	9,060	1,425	2·03	15·72
Diarrhœa	6,896	704	0·86	8·75
Scurvy	310	15	0·02	4·83
Phthisis	352	108	0·15	30·68
Cholera	3,203	1,169	1·66	36·49

In the last lustrum, 1852-56, with similar labour, but a much larger proportion of convicts employed within the walls of the prison; 424 cubic feet of space; the diet scale now in use, and an average of 76,098, the results are subjoined:—

	1	2	3	4
	Admissions.	Deaths.	Ratio per Cent. to Strength.	Ratio per Cent. to Admissions.
Dysentery	12,417	1,868	2.45	15.04
Diarrhoea	8,801	668	0.87	7.59
Scurvy	639	24	0.03	3.75
Phthisis	513	167	0.21	32.55
Cholera	3,661	1,615	2.12	44.11

The mean average mortality of the three periods combined, was; from dysentery 2.19, diarrhoea 0.97, scurvy 0.02, phthisis 0.15, cholera 2.03 per cent. of average strength. The ratios per cent. of admissions to average strength from the diseases mentioned during the three periods respectively, were 31.25, 28.29, and 34.20.

Thus, although sickness had increased in the period of the present dietary, the mortality of that period was not in excess of the mean mortality of the whole fifteen years, and was very slightly in excess of that of the middle period. The difference is not such as can fairly be attributed to the dietary alone.

It is now generally admitted that the quantity and quality of food sufficient to maintain an artizan or an agricultural labourer in health when at liberty, do not maintain the same standard of health in the same individual in confinement.

On the other hand, while feeding above the standard procurable by the honest labourer is a premium upon crime, particularly in times of distress, diet ought not to be made an instrument of punishment to the detriment of health. The argument that a convict in gaol gets a larger amount of food, and daintier fare than an honest labourer of the same class, and that therefore the good living of the criminal is more a temptation than a discouragement to crime, is not in itself a valid reason for reducing the diet of offenders against the laws, if it can be proved that a larger amount and greater variety of food is absolutely required for the same man in confinement, than was adequate to maintain him in health when at large.

All disciplinarians admit that the amount of food to which a convict is entitled should be the minimum needed *to keep him in health and strength*. It is abundantly evident, that from circumstances which appear to be inseparable from incarceration in every part of the world, and in every variety of the human race which has been subjected to penal restraint, this amount is in excess of what is amply adequate to preserve the health and strength of the same classes and individuals in freedom.

The point to consider is not what the honest labourer can obtain

by well-directed industry, but what is essential for the convict. To reduce the health and strength of a criminal, and to restore him to society less physically able to earn a livelihood than when he entered the prison, formed no part of his original sentence, and is, therefore, in excess of the requirements of the law.

The chief defects of the Bengal dietary are its unvarying sameness, and its application to many different races for whom it is not suited from their previous habits. The natives of all districts above Patna are more or less accustomed to wheaten flour as the basis of their diet. The Garrows, Sontals, Coles, and Mughhs, although habituated to a poorer and more precarious dietary than that of the prisons, are in the habit of consuming flesh to a much greater extent than is allowed in that dietary. The inhabitants of the eastern provinces, of the coast, and of all districts with an extended water shed, are used to the consumption of fish, often in an advanced state of putrefaction, yet, from early habit, consistent with a high standard of health.

The climatic and endemic influences of the different tracts of country embraced in the extended area subject to the Government of Bengal, are very considerable, and can by no means be safely disregarded in framing a prison dietary that shall be suitable to all. The ethnological differences of the various races who are inmates of the prisons under my charge, are greater than those of the different nations of Europe. The Mugh, the Bengali, and the Garrow, differ as much from each other, and from the Behari and the Seikh, as the Spaniard and the Italian differ from the Englishman.

To construct a dietary that should meet all these different characters, without losing sight of the primary object of imprisonment, was therefore a matter of very considerable difficulty. Again, although the scientific inquiries which have lately been conducted on the subject of food have thrown much light upon it, the essential conditions and proportions of a healthy and wholesome dietary, to meet the varying conditions of life, have not yet been determined. Dr. Christison, a deservedly esteemed authority upon the subject, has stated, that "experience has shown that the most successful dietaries "for bodies of men, deduced from practical observations, contain carboniferous and nitrogenous food in the proportion of about three of "the former to one of the latter, by weight." The results of twenty-two years' experience of this eminent and cautious practical observer, had not produced a single exception to this rule. Dr. Christison fixed on 28 ounces of food, of which seven are nitrogenous, as the most suitable standard for the maintenance of health under continuous exertion.

The very valuable researches of Dr. Forbes Watson on the chemical composition and dietetic value of the food grains of India,

have enabled me to construct new diet tables upon the principles above enunciated. These tables are at present under consideration.

Since they were drawn up I have become acquainted with the excellent reports of Dr. E. Smith and Mr. Milner on various points connected with the health of prisoners in England, which show that from the prison dietaries at home a considerable amount of unnecessary and injurious waste of vital power occur, that are deserving of the most serious attention. I quite concur with those gentlemen in thinking that the time has now arrived for a careful reconsideration of the whole question, and that our prisons at home and abroad afford an unrivalled field for the proper prosecution of such an inquiry. It has a most important bearing on the health and happiness of the labouring classes generally, irrespective of its interest as regards the prisoners under punishment.

With respect to the convicts in the prisons of the Lower Provinces of the Bengal Presidency, I am of opinion that the simplest and safest plan will be to fix a minimum scale of quantity, founded upon the rules laid down by Dr. Christison, and within that scale to vary the quality and variety of the rations issued in strict accordance with the ordinary habits of the labouring population of the district. Those who are idle need a smaller amount of food to repair waste and wear and tear than those who are sentenced to labour; the scale for labouring should, therefore, be higher than that for non-labouring convicts.

The following are the four different diet scales that I have suggested :—

1. *For Bengalees, Assamese, and the People of Orissa.*—Rice feeders. *For non-labourers.*—30 ounces daily, consisting of 18 ounces of rice, 6 ounces of dhal, 4 ounces of fresh vegetables, with 2 ounces daily of salt, oil, and condiments in equal parts, on Mondays, Wednesdays, Fridays, and Sundays; and on the remaining days, 18 ounces of rice, 2 ounces of dhal, and 8 ounces of fresh vegetables, with the same allowance of salt, oil, and condiments.

For Labouring Convicts.—34 ounces of food daily, viz., on the first three days above-mentioned, 20 ounces of rice, 4 ounces of dhal, 4 ounces of vegetables, and 4 ounces of fish or flesh (mutton and beef) with 2 ounces of salt, oil, and condiments. On Tuesdays, Thursdays, and Saturdays, 20 ounces of rice, 4 ounces of dhal, and 8 ounces of fresh vegetables, with the same allowance of oil, salt, and condiments. On Sundays all classes receive non-labouring rations, it being a day of rest.

2. *For Natives of Behar, the N.W. Provinces, and the Punjab.*—These are chiefly consumers of wheaten flour, but in Behar, and wherever it is procurable, rice also is eaten, to a smaller extent.

Non-labouring Scale.—30 ounces of food. On Mondays, Wednesdays, Fridays, and Sundays, 8 ounces of wheaten flour, 10 ounces of rice, 4 ounces of dhal, and 6 ounces of fresh vegetables, with 2 ounces of salt, oil, and condiments. On Tuesdays, Thursdays, and Saturdays, 8 ounces of flour, 10 ounces of rice, 6 ounces of dhal, and 4 ounces of fresh vegetables, with the same amount of salt, oil, and condiments.

Labouring Scale.—34 ounces of food. On Mondays, Wednesdays, and Fridays, 10 ounces of wheaten flour, 12 ounces of rice, 2 ounces of dhal, 4 ounces of fresh vegetables, and 4 ounces of fish or flesh, with the same amount of salt, oil, and condiments. On the other days of the week, 10 ounces of flour, 12 ounces of rice, 6 ounces of dhal, and 4 ounces of vegetables, with the same allowance of salt, oil, and condiments. On Sundays the working prisoners receive non-labouring rations. The flour is made up into unleavened cakes.

3. *For Coles, Southals, Garrows, and Hill Tribes generally.*—These people are omnivorous, scantily clothed, live much exposed to all weathers, and enjoy a precarious supply of food, as compared with those mentioned in scales Nos. 1 and 2.

Non-labouring Scale.—30 ounces of food; consisting on Mondays, Wednesdays, Fridays, and Sundays, of 20 ounces of rice, 4 ounces of vegetables, 4 ounces of fish or flesh, and 2 ounces of salt, oil, and condiments, in equal parts, or one-third of an ounce of each for each meal. On the other days, 18 ounces of rice, 10 ounces of fresh vegetables, and the same allowance of salt, oil, and condiments.

Labouring Scale.—34 ounces of food, viz., on three days of the week, 20 ounces of rice, 8 ounces of vegetables, 4 ounces of fish or flesh, and the same allowance as above of oil, salt, and condiments. On the three other week days, 20 ounces of rice, 10 ounces of vegetables, 2 ounces of fish or flesh, and the usual amount of salt, oil, and condiments. On Sundays, non-labouring rations.

4. *For Chinamen, Burmese, and Mughls.*—All omnivorous, and accustomed to a more ample dietary than the above. Rice forms still the bulk of their food.

Non-labouring Scale.— $30\frac{1}{2}$ ounces of food; consisting on all days of 22 ounces of rice, 4 ounces of vegetables, 4 ounces of fish or flesh, an ounce of a condiment called gnapee, and an ounce and a-half of salt and ordinary condiments.

Labouring Scale.—34 ounces and a-half of food, viz., on Mondays, Wednesdays, and Fridays, 24 ounces of rice, 4 ounces of vegetables, 4 ounces of fish or flesh, an ounce of gnapee, and an ounce and a-half of salt and condiments. On the three other week days, 24 ounces of rice, 6 ounces of vegetables, 2 ounces of fish or flesh, and the same amount of gnapee and condiments. On Sundays all receive non-

labouring rations. Gnapee is a Burmese luxury, of which the basis is fish in an advanced state of decomposition, mixed up with spices of different sorts.

In all the scales above-mentioned, the amount of vegetables is free of all refuse, and the meat without bones. The proportion of heat givers and flesh formers is not in exact conformity with the proportions fixed by Dr. Christison, as the convicts in Bengal are not subject to the same amount of wear and tear and exposure as the British soldier in the field, for whom Christison's scale was adopted.

V.—Sickness and Mortality of Prisoners in the Lower Provinces.

The prisons of the Lower Provinces of the Bengal Presidency seem to have been unhealthy from their very origin. The early records of sickness and mortality are incomplete and imperfect in many important particulars, but, such as they are, the average of deaths to strength, as stated by them, appear never to have been less than 6 per cent., or 60 per 1,000.

In the Bengal Prison Discipline Report, published in 1838, it is stated that, "excepting in the western districts of Bengal, the mortality of prisoners under the Bengal and Bombay Governments is not greater than we should have anticipated, considering that they belong either to the poorest and worst fed, or to the most dissipated classes of the people." The average mortality in the last four years has been in the Lower Provinces 8·33 per cent., viz. :—

	Strength.	Deaths.	Ratio.
1833.....	19,420	1,864	9·06
'34.....	20,008	1,684	8·42
'35.....	18,720	1,367	7·30
'36.....	22,368	1,796	8·03
Total....	80,516	6,711	—
Average....	20,129	1,678	8·33

Note.—Of the deaths referred to 6·61 per cent. were from ordinary diseases, and 1·72 per cent. from cholera."

The highest continuous mortality in those years was at Sheerghottee, where it ranged for the four years at 26·20, 25·95, 25, and 234·90. The station was accordingly abolished, and the gaol abandoned. The mortality that most nearly approached the ratios above-mentioned, was in a gang of prisoners employed on the Benares Road, when 167 died out of an average of 189, or 87·09 per cent. In both of the instances above-mentioned, the excessive mortality was doubtless due

to the employment of the convicts in clearing away jungle for the formation of the Grand Trunk Road. Frightful mortality, from the same cause, occurred in subsequent years among gangs of free labourers on the Raepore Road, and on the road unsuccessfully attempted to be cut from Chittagong to Akyab, in Eastern Bengal.

A mortality not very far removed from the above occurred in the two first years of the recent occupation of Port Blair, in the Andamem Islands, from similar causes. The clearing of primeval forests in the tropics is always a dangerous proceeding, and is invariably attended with great loss of life to the pioneers in such work.

The highest mortality of recent years in Bengal happened at Akyab in 1858, where, of an average of 384 prisoners, 301 died, or in the proportion of 78·38 per cent. The primary cause of this fearful loss of life was the employment of the convicts to build a sea-wall in a salt marsh. Independent of this, the year 1858 was the most sickly of the last quarter of a century in Bengal. Fatal epidemics of cholera and fever traversed the length and breadth of the land in that year.

The mortality in Lower Bengal for the ten years preceding 1859 was as follows :--

	Ratio of Deaths from Cholera.	Ratio of Deaths from Ordinary Diseases.	Total.
1849.....	1·37	4·51	5·88
'50.....	0·77	4·19	4·96
'51.....	1·26	4·26	5·52
'52.....	2·48	5·71	8·19
'53.....	2·31	7·16	9·47
'54.....	1·02	5·12	6·14
'55.....	1·71	6·83	8·54
'56.....	1·89	7·65	9·54
'57.....	2·21	9·88	12·09
'58.....	1·77	11·75	13·52
Average of } the 10 years }	1·68	6·70	8·38
1859.....	1·75	9·07	10·82

Showing an increase in 1859 over the decennial mortality of 0·07 per cent. from cholera, and of 2·37 from ordinary diseases; but a considerable decrease of mortality, as compared with the two preceding years.

In 1860, the ratio of deaths rose again to 13·37. In that year the

average number of prisoners in custody was 18,214, the number of deaths 2,347, as follows, viz.:—

From Cholera.....	729	or	4·00	per cent,
„ Dysentery.....	803	„	4·40	„
„ Diarrhœa.....	281	„	1·54	„
„ Fever.....	96	„	0·52	„
„ Phthisis.....	99	„	0·54	„
„ Other diseases.....	274	„	2·05	„
„ Accidental deaths.....	64	„	0·29	„
„ Suicidal.....	1	„	0·01	„
	<u>2,347</u>		<u>13·37</u>	

being in excess, that of the previous annual and decennial rates.

The increase in this year was due entirely to cholera and dysentery, the latter in very many cases a sequela of the former.

In 1859 the deaths were arranged for the first time, according to the classification of the Registrar-General of England. I attempted to introduce this form into Bengal five years previously, but it was overruled by the medical authorities of that time, who objected to change the system then in use. The purely medical concerns of the prisons of Bengal are not under my charge; I have in consequence been unable to introduce many other changes that are necessary to render the returns accurate and trustworthy for statistical and other purposes. In 1857, I drew up special and detailed instructions on the subject, by the adoption of which much light would have been rapidly thrown on this important branch of prison economy. They were not adopted for the same reason that caused the rejection of the forms of the Registrar-General.

An abstract of the strength of prisoners, and the ratio of deaths from cholera and from ordinary diseases in each of the fifty-four gaols of the Lower Provinces, is subjoined for the ten years ending in March, 1859.

	Strength of Prisoners.	From Ordinary Diseases.	From Cholera.	Total.
Patna.....	6065	5·04	1·40	6·44
Sarun.....	4802 $\frac{5}{12}$	6·56	1·56	7·97
Behar.....	5761 $\frac{11}{12}$	10·35	1·23	11·58
Shahabad.....	4795 $\frac{1}{2}$	5·76	1·60	7·36
Chumparun.....	2720 $\frac{3}{4}$	8·27	1·47	9·74
Tirhoot.....	4798	7·06	1·65	8·71
Bhaugulpore.....	4627	14·41	8·77	23·18
Monghyr.....	6531 $\frac{1}{4}$	10·52	2·12	12·64
Purneah.....	4367 $\frac{1}{2}$	6·14	4·72	10·74
Rajshahye.....	6226	7·26	3·51	10·77

	Strength of Prisoners.	Ratio of Deaths from Ordinary Diseases.	Ratio of Deaths from Cholera.	Total.
Pubna	2066	5·08	0·82	5·90
Rungpore	4278	13·23	0·84	14·07
Bograh	1722	6·44	1·16	7·60
Dinagepore	6858	9·69	1·46	11·15
Maldah	1015	4·82	2·46	7·28
Moorshedabad	3530	8·35	2·58	10·93
Dacca	7223	3·88	0·58	4·46
Furreedpore	4015	2·66	0·25	2·91
Sylhet	4989 $\frac{7}{12}$	5·05	1·20	6·25
Mymensing	4658	6·22	0·54	6·76
Backergunge	5636	5·59	2·62	8·21
Chittagong	2861	4·72	1·40	6·12
Tipperah	4514	4·23	1·48	5·71
Noakholly	2810	2·21	0·53	2·74
Nuddeah	4493	3·34	0·04	3·38
Alipore	10953	12·48	1·26	13·74
Baraset	2434	4·95	0·50	4·89
Jessore	6247	4·22	1·04	5·26
Burdwan	5203	5·96	2·07	8·03
Hooghly	5646	10·56	3·49	14·05
Howrah	968	6·40	0·21	6·61
Bancoorah	4131	3·87	1·07	4·94
Beerbhoom	3702	6·15	0·73	6·88
Midnapore	6821	5·88	2·01	7·89
Cuttack	2620	6·34	0·95	7·29
Balasore	1434	2·79	1·32	4·11
Pooree	1020	3·72	0·88	4·60
Hazareebaugh	6726	5·85	0·91	6·76
Lohardugga	2172	7·92	0·55	8·47
Maunbhoom	2449	5·18	4·94	10·12
Singbhoom	1537	5·66	4·62	10·28
Sumbulpore	1159	13·02	1·82	14·84
Akyab	3279	13·60	2·04	15·64
Ramree	3723	8·51	0·46	8·97
Sandoway	1941	8·55	0·16	8·71
Gowalparah	1421	9·01	2·53	11·54
Kamroop	1678	6·61	2·68	9·29
Nowgong	1081 $\frac{2}{12}$	3·42	2·31	5·73
Seebaugor	1179 $\frac{11}{12}$	7·12	0·51	7·63
Durrung	1688 $\frac{11}{12}$	3·55	1·30	4·85
Debrooghur	611 $\frac{7}{12}$	4·25	0·33	4·58
Kassiah Hills	457	5·25	0.	5·25
Cachar	479	1·25	2·30	3·55
Darjeeling	327	11·31	0.	11·31

In the accompanying tabular statement, I have attempted to arrange the prisons under my charge in the order of their healthiness during the year 1859, and have shown also the mortality of that year, as compared with the decennial period immediately preceding it:—

NAMES OF GAOLS.	MORTALITY IN 1859.						AVERAGE MORTALITY DURING THE TEN YEARS PRECEDING 1859.			DIFFERENCE BETWEEN 1859 AND THE PREVIOUS DECENNIAL AVERAGE.						
	Daily Average Strength.	Deaths from			Ratio of Deaths.			Ratio of Deaths.			In Ratio of Mortality by Ordinary Diseases.		In Ratio of Mortality by Cholera.		In Total Ratio of Mortality.	
		Ordinary Diseases.	Cholera.	Total.	By Ordinary Diseases.	By Cholera.	Total.	By Ordinary Diseases.	By Cholera.	Total.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.
1. Jessore.....	503	5	0	5	0.99	0.00	0.99	4.32	1.25	5.57	—	3.33	—	1.25	—	4.58
2. Baraset.	265	3	0	3	1.13	0.00	1.13	4.83	0.45	5.28	—	3.70	—	0.45	—	4.15
3. Nuddeah.....	374	5	1	6	1.34	0.26	1.60	3.40	0.07	3.47	—	2.06	0.19	—	—	1.87
4. Noakholly.....	319	6	2	8	1.87	0.63	2.50	2.20	0.45	2.65	—	0.33	0.18	—	—	0.15
5. Tipperah.....	445	13	0	13	2.92	0.00	2.92	5.03	1.61	6.64	—	2.11	—	1.61	—	3.73
6. Balasore.....	93	2	1	3	2.15	1.07	3.22	2.90	1.25	4.15	—	0.75	—	0.18	—	0.93
7. Hazareebaugh.....	348	12	0	12	3.44	0.00	3.44	6.51	0.77	7.28	—	3.07	—	0.77	—	3.84
8. Pubna.....	170	5	1	6	2.94	0.59	3.53	4.53	0.82	5.35	—	1.59	—	0.23	—	1.82
9. Furreedpore ...	395	14	2	16	3.54	0.51	4.05	2.47	0.26	2.73	1.07	—	0.25	—	1.32	—
10. Maldah.....	48	2	0	2	4.16	0.00	4.16	4.84	1.70	6.54	—	0.68	—	1.70	—	2.38
11. Pooree.....	109	4	1	5	3.67	0.92	4.59	3.40	1.21	4.61	0.27	—	—	0.29	—	0.02
12. Dacca.....	694	35	5	38	4.75	0.72	5.47	3.77	0.59	4.36	0.98	—	0.13	—	1.11	—
13. Mymensing.....	505	28	0	28	5.54	0.00	5.54	5.88	0.54	6.42	—	0.34	—	0.51	—	0.88
14. Midnapore.....	773	43	0	43	5.56	0.00	5.56	5.42	2.40	7.82	0.14	—	—	2.40	—	2.26
15. Bancoorah.....	483	26	3	29	5.38	0.62	6.00	3.79	1.34	5.13	1.59	—	—	0.72	0.87	—
16. Seebesaugor.....	112	7	0	7	6.25	0.00	6.25	7.68	0.50	8.18	—	1.43	—	0.50	—	1.98
17. Beerbhoom.....	413	26	0	26	6.29	0.00	6.29	5.95	1.26	7.21	0.34	—	—	1.26	—	0.92
18. Durrung.....	166	11	0	11	6.62	0.00	6.62	3.23	1.05	4.28	3.39	—	—	1.05	2.34	—
19. Sylhet.....	386	25	1	26	6.47	0.26	6.73	4.79	1.87	6.66	1.68	—	—	1.61	0.07	—
20. Nowgong.....	73	0	5	5	0.00	6.84	6.84	3.42	1.55	4.97	—	3.42	5.29	—	1.87	—
21. Moorshedabad ..	174	12	0	12	6.89	0.00	6.89	8.16	4.18	12.34	—	1.27	—	4.18	—	5.46
22. Bograh.....	169	10	2	12	5.92	1.18	7.10	6.44	0.65	7.09	—	0.52	0.53	—	0.01	—
23. Kamroop.....	162	11	1	12	6.78	0.62	7.40	6.78	2.57	9.35	—	—	—	1.95	—	1.92
24. Maunbhoom ...	395	19	11	30	4.81	2.78	7.59	4.54	6.92	11.46	0.27	—	—	4.14	—	3.87
25. Cachar.....	78	0	6	6	0.00	7.69	7.69	1.50	1.86	3.36	—	1.50	5.83	—	4.33	—
26. Kassiah Hills ...	38	3	0	3	7.89	0.00	7.89	5.50	0.83	6.33	2.39	—	—	0.83	8.56	—
27. Cuttack.....	288	19	6	25	6.60	2.08	8.68	6.23	0.86	7.09	0.37	—	1.22	—	1.59	—
28. Patna.....	751	40	28	68	5.32	3.73	9.05	4.77	1.04	5.81	0.55	—	2.69	—	3.24	—
29. Backergunge.....	547	41	9	50	7.50	1.64	9.14	5.28	2.44	7.72	2.22	—	—	0.80	1.42	—
30. Tirhoot.....	400	32	5	37	8.00	1.25	9.25	7.01	2.22	9.23	0.99	—	—	0.97	0.02	—
31. Shahabad.....	288	26	4	30	9.02	1.39	10.41	6.53	1.18	7.71	2.49	—	0.21	—	2.70	—
32. Chittagong.....	249	28	0	28	11.24	0.00	11.24	4.43	1.55	5.98	6.81	—	—	1.55	5.26	—
33. Hooghly.....	922	90	16	106	9.76	1.73	11.49	9.45	3.59	13.04	0.31	—	—	1.86	—	1.58
34. Chumparun.....	233	26	1	27	11.15	0.43	11.58	7.57	1.32	8.89	3.58	—	—	0.89	2.69	—
35. Howrah*.....	69	8	0	8	11.59	0.00	11.59	3.89	0.11	4.00	7.70	—	—	0.11	7.59	—
36. Sandoway.....	241	29	0	29	12.03	0.00	12.03	8.74	0.17	8.91	3.29	—	—	0.17	3.12	—
37. Debrooghur.....	91	11	0	11	12.08	0.00	12.08	3.09	0.29	3.38	8.99	—	—	0.29	8.70	—
38. Sumbulpore*....	161	20	0	20	12.42	0.00	12.42	7.04	2.00	9.04	5.38	—	—	2.00	3.38	—
39. Rajshahye.....	534	59	15	74	11.04	2.81	13.85	6.50	3.52	10.02	4.54	—	—	0.71	3.83	—
40. Monghyr.....	456	46	18	64	10.09	3.94	14.03	9.58	1.89	11.47	0.51	—	2.05	—	2.56	—
41. Singbhoom.....	155	19	3	22	12.25	1.94	14.19	4.70	3.53	8.23	7.55	—	—	1.59	5.96	—
42. Sarun.....	333	39	11	50	11.71	3.30	15.01	5.86	1.27	7.13	5.85	—	2.03	—	7.88	—
43. Gawalparah.....	113	9	8	17	7.96	7.08	15.04	8.55	2.02	10.57	—	0.59	5.06	—	4.47	—
44. Lohardugga.....	314	44	5	49	14.01	1.59	15.60	6.71	0.31	7.02	7.30	—	1.28	—	8.58	—
45. Ramree.....	376	56	3	59	14.89	0.80	15.69	7.17	0.49	7.60	7.72	—	0.31	—	8.03	—
46. Dinagepore.....	735	116	4	120	15.78	0.54	16.32	7.74	1.46	9.20	8.04	—	—	0.92	7.12	—
47. Aiiopore.....	1856	274	30	304	14.76	1.61	16.37	10.40	0.81	11.21	4.36	—	0.80	—	5.16	—
48. Behar.....	549	91	1	92	16.57	0.18	16.75	10.05	1.33	11.38	6.52	—	—	1.15	5.37	—
49. Burdwan.....	654	74	36	110	12.84	3.97	16.81	5.01	1.70	6.71	7.83	—	2.27	—	10.10	—
50. Bhaugulpore ...	487	47	39	86	9.64	8.01	17.65	14.30	8.29	22.59	—	4.66	—	0.28	—	4.9
51. Darjeeling†.....	45	9	0	9	20.00	0.00	20.00	6.93	0.00	6.93	13.07	—	—	—	13.07	—
52. Rungpore.....	374	66	0	75	17.64	2.41	20.05	12.52	0.72	13.24	5.12	—	1.69	—	6.81	—
53. Akyab.....	306	64	4	68	20.91	1.31	22.22	11.35	2.28	13.63	9.56	—	—	0.97	8.59	—
54. Purneah.....	329	56	55	111	17.02	16.71	33.73	5.28	3.26	8.54	11.74	—	13.45	—	25.19	—

* The averages of these Gaols have been given for only seven years, they having been established in 1852.

† Ditto ditto it having come under the Bengal Government in 1852

From the above it will be perceived, that with the same diet and labour, and as much uniformity as could be ensured in the system of prison discipline, the mortality varied from a fraction less than 1 per cent. at Jessore, to 33·73 per cent. at Purneah. In the latter prison the mortality was exceptional, and no less than 25·19 per cent. in excess of the previous decennial rate. The first-mentioned prison was for many years one of the most unhealthy in Bengal.

In the subjoined table are shown the deaths from the causes mentioned during the several months of the years 1858, and 1859. The influence of season on sickness and mortality has not yet been properly investigated in India. It is one of very considerable importance, and it is to be hoped will hereafter receive the attention it merits and requires.

MONTHS	Daily Average Strength of Prisoners in each Month in 1858.	Daily Average Strength of Prisoners in each Month in 1859.	DEATHS FROM															
			DYSENTERY.				DIARRHŒA.				CHOLERA.				PHTHISIS.			
			In 1858.		In 1859.		In 1858.		In 1859.		In 1858.		In 1859.		In 1858.		In 1859.	
			Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.
January ...	20,072	19,435	67	0·34	39	0·20	22	0·11	19	0·10	13	0·06	5	0·02	—	—	10	0·05
February..	20,434	19,269	78	0·39	28	0·15	25	0·12	20	0·10	2	0·001	7	0·03	—	—	9	0·05
March.....	20,681	19,318	39	0·19	33	0·17	35	0·17	16	0·08	91	0·44	16	0·08	—	—	7	0·04
April	21,132	19,511	64	0·30	58	0·30	35	0·17	27	0·14	95	0·45	30	0·15	—	—	23	0·12
May.....	21,251	19,506	94	0·44	41	0·21	42	0·20	21	0·11	24	0·11	55	0·28	—	—	11	0·06
June.....	21,476	19,792	100	0·46	52	0·26	51	0·24	26	0·13	60	0·28	24	0·12	—	—	9	0·05
July.....	21,686	19,838	108	0·50	51	0·26	34	0·16	16	0·08	27	0·12	45	0·23	—	—	6	0·03
August.....	20,895	19,786	100	0·48	64	0·32	32	0·15	28	0·14	17	0·08	17	0·09	—	—	3	0·02
September	20,765	19,494	124	0·60	82	0·42	39	0·18	42	0·21	4	0·02	10	0·05	—	—	7	0·03
October....	20,599	17,219	109	0·53	80	0·47	30	0·14	41	0·24	8	0·04	35	0·20	—	—	18	0·10
November	19,989	20,934	99	0·50	92	0·44	40	0·20	54	0·26	21	0·10	63	0·30	—	—	19	0·09
December.	19,587	20,450	66	0·34	119	0·58	35	0·18	32	0·16	4	0·02	35	0·17	—	—	0	0·04
Total...	248,567	234,552	1,048	0·42	739	0·32	420	0·17	342	0·15	336	0·15	342	0·15	—	—	131	0·05
Annual Average }	20,714	19,546	—	5·06	—	3·78	—	2·03	—	1·75	—	1·77	—	1·75	—	—	—	0·67

MONTHS.	DEATHS FROM												TOTAL.				REMARKS.
	FEVER.				ALL OTHER DISEASES.				OTHER CAUSES.								
	In 1858.		In 1859.		In 1858.		In 1859.		In 1858.		In 1859.		In 1858.		In 1859.		
	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	Deaths.	Ratio of Deaths to Average Strength.	
January ...	—	—	6	0·03	77	0·38	31	0·16	—	—	1	0·01	179	0·89	111	0·57	In 1858 the monthly deaths under the heads of phthisis fever, and other causes, were not ascertained, they were included under head of "all other diseases," hence no comparison can as respects them be made with the results shown this year.
February ..	—	—	8	0·04	60	0·29	17	0·09	—	—	2	0·01	165	0·81	91	0·47	
March	—	—	7	0·04	83	0·40	25	0·13	—	—	2	0·01	248	1·20	106	0·55	
April	—	—	15	0·08	79	0·37	30	0·15	—	—	5	0·02	273	1·29	188	0·96	
May	—	—	11	0·06	71	0·33	33	0·17	—	—	5	0·02	231	1·08	177	0·91	
June	—	—	3	0·01	76	0·35	37	0·19	—	—	4	0·02	287	1·33	155	0·78	
July	—	—	6	0·03	70	0·32	14	0·07	—	—	3	0·01	239	1·10	841	0·71	
August	—	—	10	0·05	88	0·42	30	0·15	—	—	2	0·01	237	1·13	154	0·78	
September.	—	—	13	0·07	85	0·41	27	0·14	—	—	1	0·01	252	1·21	182	0·93	
October ...	—	—	12	0·07	103	0·50	41	0·24	—	—	2	0·01	250	1·21	229	1·33	
November .	—	—	18	0·08	104	0·52	65	0·31	—	—	4	0·02	264	1·32	315	1·50	
December..	—	—	12	0·06	70	0·35	60	0·29	—	—	0	0·00	175	0·89	267	1·30	
Total...	—	—	121	0·05	966	0·39	410	0·17	—	—	31	0·01	2,800	1·13	2,116	0·90	
Mean Average }	—	—	—	0·62	—	4·66	—	2·10	—	—	—	0·15	—	13·52	—	10·82	

No exact inferences can be deduced from so short a period of time.

My returns are not yet sufficiently exact, from causes beyond my control, to afford definite information upon many points necessary to explain the exact causes of the great sickness and mortality above referred to.

The following brief abstract of the results already obtained, since the prisons were placed under my charge, are not without interest.

As respects the length of time those who died were in prison prior to their decease, there were in—

	1854-55.	1855-56.	1856.	1857.	1858.	1859.	Total.
3 months and under	211	529	394	526	776	426	2,862
6 months and above 3 months	165	228	296	306	508	255	1,758
1 year, and above 6 months	225	365	312	370	550	368	2,190
2 years and above 1 year	205	291	280	379	308	484	1,947
2 „ and upwards	447	606	551	478	320	385	3,322
Life Prisoners	—	—	—	61*	338	198	67
Total.....	1,253	2,019	1,838	2,120	2,800	2,116	—

* In sixty-one cases the length of time the deceased prisoners had been in confinement could not be ascertained, on account of the destruction of records by mutineers. It is not certain that they were all life convicts.

Thus, in 12,146 deaths which occurred in six years, 2,862, or more than one-fifth, had been less than three months in prison, and 6,710, or more than one-half, had not been more than a year in confinement. The greater number of these were in all probability more or less sickly at the time of their conviction. The early records are entirely deficient in this, as on nearly every other point necessary to explain the cause of some portion of the prevalent sickness and mortality. Even now, the information furnished is by no means so detailed and precise as it ought to be.

A few examples, selected from the record of 1859, will, however, show the great amount of influence due to this cause.

Of 720 prisoners admitted to the Patna gaol, 205 were in bad health, 79 in impaired health, and 88 were feeble and infirm from old age and other causes. At Sarun, one-tenth of the whole number of casualties was in prisoners under trial, all of whom laboured under mortal diseases when arrested. At Behar, 44 prisoners were unhealthy, 161 old and infirm, and 26 actually sick when admitted. Of the 23 deaths among those imprisoned in that year, 6 only were from the healthy on admission. At Chumparun, 84 sickly prisoners were admitted; at Behar, 38 were old, infirm, weak, and emaciated; at Monghyr, 126 were sickly and debilitated; at Furreedpore, 12½ per cent. were sickly, or nearly worn out by old age and natural decay; at Sylhet, 495 were in bad health, and half of them labouring under scurvy; at Mymensing, 494 were more or less sickly and diseased; at Chittagong, 8 per cent. of the casualties occurred among convicts incarcerated in advanced stages of organic disease; at Nuddeah, 124 were old, debilitated, or actually suffering from disease; at Alipore, of 303 deaths, 199 were among prisoners

recently admitted, and sickly at the time; at Howrah, of 8 deaths, 7 were in aged life convicts, some of whom had been more than half a century in confinement, the eighth was also an aged man, who died before he was tried, almost immediately after his arrest; at Beerbhoom, 20 were diseased when convicted; at Singbhoom, 2 entered the prison in a dying state, and died very shortly afterwards of dysentery; at Gowalparah, many of the prisoners on admission were miserable objects, quite unfitted to undergo imprisonment; at Cachar, 25 per cent. were admitted in bad health, and in several other prisons a majority of the convictions were reported to have been sickly, without a statement of the actual diseases under which they laboured. The returns generally do not show the exact ratio of deaths to the number admitted in a diseased state. This defect might easily be remedied by a more exact system of medical returns.

With respect to the term of sentence of those who died, returns were only submitted in 1858, and the following are the results as regards that year and 1859. The returns of 1860 are not yet in my possession.

	1858.	1859.
Under 1 year	431	157
From 1 to 2 years	240	282
" 2 " 3 "	320	169
" 3 " 4 "	41	321
" 4 " 5 "	185	34
" 5 " 6 "	22	175
" 6 " 7 "	416	9
" 7 " 8 "	19	246
" 8 " 9 "	27	20
" 9 " 10 "	125	19
" 10 " 26 "	306	278
Life convicts	338	198
Prisoners under trial	259	186
Civil Prisoners (debtors and } revenue defaulters)	19	22
Not specified	52	—

The exact ratio of casualties to admissions of each class is not at present contained in the returns. The imperfect information afforded by the enumeration, however, shows that a large proportion of the deaths occur very shortly after conviction; that a considerable proportion are untried at the time of death; and that the life convicts, whose career must end in confinement, furnish a fair quota of the casualties.

With reference to crime, there died in the two years mentioned—

	1858.	1859.
Thieves	391	461
Gang robbers	641	357
Murderers	199	186
Burglars	174	117
Mutineers	43	101

The classes that suffer most from imprisonment in Bengal are agricultural labourers and servants. Hindoos are much more sickly than Mahommedans, and of the former the higher castes die in greatest numbers. Women are much more healthy in prison than men—probably from their more secluded lives in their own homes.

With respect to age, there died in 1858 and the following year,—

	1858.	1859.
Under 25 years	88	100
25 to 30 „	298	203
30 „ 35 „	253	243
35 „ 40 „	425	305
40 „ 45 „	189	180
45 „ 50 „	261	161
50 „ 60 „ and above.....	177	106

Every care is taken to ascertain the ages of the prisoners as exactly as possible, but as very few natives of India know the date of their births, and as most of their own calculations are for lunar months, little confidence can be placed in any existing records on the subject.

Natives of India are known to bear transplantation very badly, and to suffer much more severely from sickness in districts and provinces foreign to them, than in those of their nativity.

A large proportion, in fact nearly all persons convicted of felonies and heinous offences are sentenced to what is termed banishment, or transfer to the prisons of districts foreign to them. It has long been suspected, that much sickness and mortality are due to this cause, but as on every other point of real importance, the medical records do not show the exact amount of influence exercised on health by banishment.

In the years under-mentioned, the deaths of prisoners confined in their own districts, and of those who died in other districts, are enumerated :—

	1854-55.	1855-56.	1856-57.	1858.	1859.
Of district	1,616	1,341	1,142	1,351	1,157
Of other districts	403	497	978	1,449	969

As the returns do not show the exact ratio of deaths to convictions of each class, this record does not throw much light upon the question. The number of misdemeanants sentenced to short terms of imprisonment in their own zillahs or counties, is, however, very greatly in excess of those convicted of graver crimes, and transferred to distant prisons; the probability therefore is, that the suspicion is correct. There is no doubt, with regard to natives at liberty, that Bengal is unhealthy to up-country men and Punjabees, and that Bengalees are themselves sickly in Aracan and Burmah. This is particularly the case with sepoys from Hindustan, who are nearly as sickly as Europeans in the provinces last-named.

The question is therefore deserving of more careful attention than it has heretofore received.

From tables compiled in the office of the late Medical Board of Bengal, the following statement of the mortality in the prisons of the Upper and Lower Provinces of that Presidency for forty-two years is obtained:—

Average strength	1,053,825
Deaths	76,404
From dysentery	15,370
,, diarrhoea	7,430
,, fevers	11,539
,, cholera.....	9,236
,, phthisis	1,446
,, hepatitis	167
,, all other diseases and causes	31,216

In that period the

Ratio of sick to strength was	123·07
,, deaths ,,	7·25
,, ,, to treated	5·86

There unfortunately exist no trustworthy data of the health and mortality of the free population in any part of Northern India, to compare with the preceding. In a report published by the Municipal Commissioners of Calcutta a short time since—to which I have not access at present—if I remember rightly, the mortality of the native population during the year in question, was estimated at 3·50 per cent. I am afraid that no confidence can be placed in this statement,

because the numerical strength of the population of the metropolis of British India is unknown; the estimates formed of it by different persons varying by as much as 250,000.

Attempts have been made to contrast the mortality of the prisoners in Bengal, with that of the sepoys of the late Bengal army, which has been estimated at about 1·60 per cent. The grounds of comparison are so entirely different, that no inferences of any practical value can be fairly deduced from them. The sepoys were recruited from the healthiest and most long-lived classes of the population. They were very carefully selected, and all men of doubtful physical formation were rejected. A large number of them enlisted for short periods, and left the army while still in the prime of life and vigour. Many died when absent on leave, who were not accounted for in the casualty rolls. At different times large temporary levies were entertained which were again disbanded on the cessation of the pressure that called them into existence, as after the Afghan disasters, during the Sikh and Punjab campaigns, and during the recent mutiny, by the enrolment of a motley host, which has again melted away, before its members could have exerted an appreciable influence on the sickness and mortality in the army. Again, it is well known that no Hindoo of any caste will, if he can avoid it, die away from the sacred streams and holy places of his country. If sick unto death, they invariably, when in any way practicable, obtained leave of absence to die in the odour of sanctity, and usually never rejoined the ranks. Such cases used not to be, and probably are not still, debited to the mortality list of the army, so that the calculations of the casualties among the native soldiers of Bengal, were not themselves free from important sources of fallacy. These very men in Aracan, Burmah, and generally when employed out of their own country, are sickly and die in large numbers, either at once, or after their return to their homes on leave, from the sequelæ of diseases contracted on foreign service.

The prisoners on the other hand, “belong to the most short-lived
“of all classes, being either ill-fed or dissipated men, they are of all
“ages, many of them are in bad health when at first confined, and
“every one of them is detained until his term expires, whether they
“get ill or not.”*

At the same time it must be admitted that a very large proportion of the Bengal prison mortality, is from zymotic diseases, and is preventible by a better construction of prisons than at present obtains; by a larger amount of space being allowed to each convict to at least double the extent that obtains at present; by improved drainage and ventilation, several of the most unhealthy gaols being

* “Bengal Prison Discipline Report,” Calcutta, p. 65.

from defects of original construction and the injudicious selection of their sites, insusceptible of either the one or the other; by some change in the existing dietary, to be determined by careful experiments for which the requisite scientific data now exist; and by the careful regulation of labour and internal economy by some more immediately responsible and skilled agency, than that afforded by the existing system of placing the prisoners in the charge of officers who have neither the time, the experience, nor the particular knowledge necessary to control them properly. For this a special agency is quite as much needed in India as it is in England. The remedy for the existing evils needs only the introduction of the system of construction and internal management of prisons which have worked so well in England and in Ireland, and which is seen in the Mazas prison in Paris, and the Maisons Centrales of France, many of which I have visited since my return to England, and studied carefully with special reference to this subject.

In dealing with this part of the question of prison management, I have purposely avoided all purely professional and technical details as unsuited for the Statistical Society.

VI.—*Labour in its Penal, Pecuniary, and Reformatory Relations.*

Prior to 1838 no regular system of in-door labour for convicts existed in Bengal. The most hardened offenders, and those convicted of heinous crimes, worked in chains on the public roads. The menial offices of the prisons were performed by men of suitable caste, and similar functions in public offices were assigned to convicts. The great body of the convicts were idle, and led a life of ease and indulgence proportionate to their means of bribing the gaolers and other subordinate functionaries with whom they come into immediate contact. It may easily be imagined that by such a system few of the ends intended to be produced by imprisonment, either of a penal or reformatory character, were likely to result. The mode of employing the labour of the convicts rested entirely with the magistrates of the districts. It was remarked by the Bengal Prison Discipline Committee that “the sentence of hard labour is sometimes set aside, by
“allowing the labour to be merely nominal; and at all times an
“uncontrolled power of alleviating the sentence of the law is
“possessed by subordinate functionaries, whose only proper duty is
“to carry that sentence into execution. This power is recognised in
“the magistrate alone; but there is no doubt that it is exercised,
“more or less, according to the vigilance of that officer, but still
“everywhere exercised by the gaol darogahs (gaolers). When
“exercised by the magistrate it is, we believe, always with an honest,
“though it must often be with an erroneous regard to the crime, the
“general character of the prisoner, or the peculiar effect which a

“particular kind of work would have upon him. When exercised by the gaol darogah it is, we believe, never with any regard to the crime or the character of the prisoner, but either from a popular respect to his caste or character, or from a knowledge of his having the means of paying for the favour.”

That committee, among the remedial measures suggested by it, strongly urged the abolition of out-door work, and the strict enforcement of in-door labour. With reference to the latter, they set their faces against the introduction of manufactures and industrial occupations, on general and special grounds, and advocated the employment of convicts sentenced to labour in dull, monotonous, wearisome tasks, such as stepping upon a tread-wheel, turning a capstan or hand-crank, pumping water, pounding bricks, grinding flour, and the like.

The tread-wheel and crank were only partially tried, and were speedily abandoned. As mere instruments of punishment they were effective enough, but they were found to be injurious to health, to be an unprofitable employment of labour that might be turned to good account, and to be attended with no moral benefit to the criminal himself. Accordingly, the employment of convicts in profitable works of industry was commenced, and has been continued to the present time.

In the tables which are subjoined are shown the financial results of the measure for seventeen successive years, exhibiting a steady and progressive increase.

The first table exhibits the out-turn of manufactures from 3,696*l.* in 1843, to 17,394*l.* in 1859, or nearly treble the amount, after deducting all charges incurred in their production.

ABSTRACT STATEMENT of the Out-turn of Gaol Manufactures in Bengal from their commencement in 1843-4 to the Year 1859-60.

1	2	3	4	5	6	7	8	9
Years.	Number of Manufacturing Gaols.	Average Number of Prisoners sentenced to Labour in all Gaols.	Average Number of Prisoners employed upon Manufactures.	Value of Articles Sold and Consumed for Public Purposes.	Add Value of Articles in Store at the close of the Year.	Total.	Deduct Value of Articles in Store at the close of the Preceding Year.	Gross Out-turn of the Year.
				R.	R.	R.	R.	R.
1843-44	35	19,707	Not known	42,954	19,849	62,803	—	62,803
'44-45	35	21,204	3,138	70,813	20,524	91,338	19,847	71,488
'45-46	40	21,257	3,986	84,716	24,397	109,114	20,524	88,589
'46-47	43	20,762	4,717	98,951	28,926	127,877	24,397	103,479
'47-48	46	19,991	4,791	107,514	30,304	137,818	28,926	108,892
'48-49	45	20,252	4,807	116,116	33,914	150,030	30,304	119,726
'49-50	45	19,755	4,980	137,042	36,742	173,784	33,914	139,870
'50-51	48	20,990	4,923	154,343	40,480	194,824	36,742	158,081
'51-52	50	20,285	5,975	178,046	51,295	229,341	40,480	188,860
'52-53	52	20,023	6,637	203,852	64,403	268,255	51,295	216,960
1853-54	48	16,980	6,132	236,861	57,618	294,479	62,971	231,507
'54-55	49	16,691	6,645	226,749	56,038	282,788	57,618	225,169
'55-56	49	16,585	6,435	235,740	55,555	291,296	56,894	234,401
'56-57	48	16,885	6,306	259,171	56,169	315,341	55,532	259,808
'57-58	47	15,664	5,999	250,985	60,842	311,828	47,501	264,326
'58-59	46	16,121	5,610	244,071	53,596	297,667	53,970	243,697
'59-60	53	15,869 $\frac{11}{10}$	6,673 $\frac{1}{4}$	298,584	79,076	377,661	51,416	326,046

10	11	12	13	14	15	Remarks.
Charges incurred during the Year on account of Manufactures.	Net Produce of the Year.	Average Earning of each Prisoner employed upon Manufactures.	Average Earning from Manufactures of each Prisoner Sentenced to Labour.	Increase in the Produce of the Year as compared with the Previous Year.	Decrease in the Produce of the Year as compared with the Previous Year.	
R.	R.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
1843-44	25,840	36,963	—	1 14 $-\frac{1}{10}$	—	—
'44-45	34,869	36,618	11 10 $8\frac{5}{10}$	1 11 $7\frac{5}{10}$	—	344 7 10
'45-46	42,186	46,402	11 10 $3\frac{1}{10}$	2 2 11 $\frac{1}{10}$	9,784 — $8\frac{1}{2}$	—
'46-47	50,625	52,853	11 3 $3\frac{3}{10}$	2 8 $8\frac{7}{10}$	6,451 — $11\frac{1}{2}$	—
'47-48	61,302	47,590	9 14 $11\frac{2}{10}$	2 6 1	—	5,263 4 $2\frac{1}{2}$
'48-49	62,389	57,337	11 14 $10\frac{1}{10}$	2 13 $3\frac{5}{10}$	9,746 6 $7\frac{1}{2}$	—
'49-50	69,029	70,840	14 3 $7\frac{2}{10}$	3 9 $4\frac{5}{10}$	13,503 8 11	—
'50-51	70,058	82,023	16 10 $6\frac{9}{10}$	3 14 $6\frac{3}{10}$	11,182 10 $10\frac{3}{4}$	—
'51-52	94,010	94,850	15 13 $11\frac{9}{10}$	4 10 $9\frac{7}{10}$	12,826 15 $4\frac{1}{2}$	—
'52-53	115,666	101,294	15 4 $2\frac{3}{10}$	5 — $11\frac{3}{10}$	6,444 7 $8\frac{1}{4}$	—
1853-54	143,357	88,149	14 6 —	5 3 $-\frac{9}{10}$	—	13,144 12 $9\frac{1}{2}$
'54-55	131,586	93,583	14 1 $3\frac{9}{10}$	5 9 $8\frac{5}{10}$	5,433 6 $3\frac{1}{4}$	—
'55-56	125,542	108,859	16 14 8	6 9 $-\frac{2}{10}$	15,275 11 $8\frac{3}{4}$	—
'56-57	136,169	123,638	19 9 $8\frac{4}{10}$	7 5 $1\frac{9}{10}$	14,779 9 $2\frac{1}{4}$	—
'57-58	142,568	121,758	20 4 $8\frac{9}{10}$	7 12 $4\frac{1}{10}$	—	1,880 3 4
'58-59	138,319	126,686	22 9 $3\frac{8}{10}$	7 13 $8\frac{8}{10}$	4,927 10 3	—
'59-60	152,103	173,943	26 1 $-\frac{6}{10}$	10 15 $4\frac{9}{10}$	47,256 14 $-\frac{1}{2}$	—

The results in this Statement up to the Year 1857-58 are taken from the Bengal Government Resolution of the 12th July, 1859, and include the House of Correction, which is not under the control of the Inspector-General of Gaols, Lower Provinces.

The average earning of each prisoner very nearly doubled in the time mentioned. The amounts mentioned are in Indian currency.

The profits realized by the sale of the products of prison industry are shown in the next table, together with the net earning of each convict employed in handicraft, and of each individual sentenced to labour.

1	2	3	4	5	6	7	8
Years.	Number of Manufacturing Gaols.	Average Number of Prisoners Sentenced to Labour in all Gaols.	Average Number of Prisoners Employed in Manufactures.	Charges.	Gross Receipts or Value of Articles Sold and of those Consumed for Public Purposes.	Value of Articles in Store at the end of the Year.	Total Out-turn or Amount of Columns 6 and 7.
				R.	R.	R.	R.
1843-44	35	19,707	Not known.	25,840	42,954	19,849	62,803
'44-45	35	21,204	3,138	34,869	70,813	20,524	91,338
'45-46	40	21,257	3,986	42,186	84,716	24,397	109,114
'46-47	43	20,762	4,717	50,625	98,951	28,926	127,877
'47-48	46	19,991	4,791	61,302	107,514	30,304	137,818
'48-49	45	20,252	4,807	62,389	116,116	33,914	150,030
'49-50	45	19,755	4,980	69,029	137,042	36,742	173,784
'50-51	48	20,990	4,923	76,058	154,343	40,480	194,824
'51-52	50	20,285	5,975	94,010	178,046	51,295	229,341
'52-53	52	20,023	6,637	115,666	203,852	64,403	268,255
1853-54	48	16,980	6,132	143,357	236,861	57,618	294,479
'54-55	49	16,691	6,645	131,586	226,740	56,038	282,788
'55-56	49	16,585	6,435	125,542	235,740	55,555	291,296
'56-57	48	16,885	6,306	136,169	259,171	56,169	315,341
'57-58	47	15,664	5,999	142,568	250,985	60,842	311,828
'58-59	46	16,121	5,610	138,319	244,071	53,596	27,667
'59-60	53	15,869 $\frac{1}{60}$	6,673 $\frac{1}{4}$	152,103	298,584	79,076	377,661

	9	10	11	12	13	
Years.	Net Profit, being the Excess of the Amount in Column 6 over that in Column 5.	Average Earning of each Prisoner employed on Manufactures.	Average Earning of each Prisoner, sentenced to labour, from Manufactures.	Increase in the Profits of the Year over those of the previous Year.	Decrease in the Profits of the Year from those of the previous Year.	Remarks.
	R.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
1843-44	17,113	—	— 13 10 $\frac{7}{10}$	—	—	
'44-45	35,943	11 7 3 $\frac{2}{10}$	1 11 1 $\frac{4}{10}$	18,829 15 4	—	
'45-46	42,529	10 10 8 $\frac{6}{10}$	2 — $\frac{1}{10}$	6,585 15 $\frac{1}{2}$	—	
'46-47	48,325	10 3 11	2 5 2 $\frac{8}{10}$	5,795 13 1 $\frac{1}{2}$	—	
'47-48	46,212	9 10 3 $\frac{9}{10}$	2 4 11 $\frac{8}{10}$	—	2,113 — 9 $\frac{1}{2}$	
'48-49	53,727	11 2 9 $\frac{9}{10}$	2 10 5 $\frac{9}{10}$	7,514 7 11 $\frac{1}{4}$	—	
'49-50	68,012	13 10 6 $\frac{1}{10}$	3 7 1	14,285 1 5 $\frac{3}{4}$	—	
'50-51	78,285	15 14 5 $\frac{1}{10}$	3 11 8	10,723 3 7 $\frac{1}{2}$	—	
'51-52	84,036	14 1 $\frac{4}{10}$	4 2 3 $\frac{7}{10}$	5,750 12 3	—	
'52-53	88,186	13 4 7	4 6 5 $\frac{6}{10}$	4,149 15 1 $\frac{1}{4}$	—	
1853-54	93,503	15 3 11 $\frac{7}{10}$	5 8 1 $\frac{2}{10}$	5,317 4 5 $\frac{3}{4}$	—	
'54-55	95,163	14 5 1 $\frac{6}{10}$	5 11 2 $\frac{6}{10}$	1,659 13 3 $\frac{3}{4}$	—	
'55-56	110,197	17 1 11 $\frac{9}{10}$	6 10 3 $\frac{7}{10}$	15,034 12 1 $\frac{1}{4}$	—	
'56-57	123,001	19 8 1	7 4 6 $\frac{6}{10}$	12,803 14 7 $\frac{1}{2}$	—	
'57-58	108,417	18 1 1 $\frac{9}{10}$	6 14 8 $\frac{9}{10}$	—	14,584 7 9 $\frac{3}{4}$	
'58-59	127,060	22 10 4 $\frac{6}{10}$	7 14 1 $\frac{3}{10}$	18,643 2 $\frac{1}{4}$	—	
'59-60	146,481	21 15 2 $\frac{5}{6}$	9 3 8 $\frac{2}{10}$	19,420 10 7 $\frac{1}{2}$	—	

The results up to the year 1857-58 are taken from the Bengal Government Resolution of the 12th July, 1859, and include the House of Correction, which is not under the control of the Inspector-General of Gaols, Lower Provinces.

The influence exercised by the substitution of profitable for unprofitable industry in the prisons of Bengal, is exhibited in the subjoined statement of the gross and net cost of prisoners, since the department has been under my charge.

The gross cost in the years mentioned is as follows, together with the net cost, which has been obtained by deducting the actual net profits realized from the gross cost of maintenance:—

	Gross Cost.	Average Cost per Prisoner.	Net Cost.	Net Average Cost per Prisoner.
	R.	R. A. P.	R.	R. A. P.
1855-56	814,938	42 10 7	724,079	37 14 5·9
'56-57	823,659	43 — 1	716,359	37 6 5·9
'57-58	786,604	41 10 7	674,804	36 12 6
'58-59	883,919	43 9 4	778,541	38 6 2
'59-60	795,109	41 13 5	621,166	32 11 —

In round numbers, about a seventh of the whole cost of maintenance of tried and untried prisoners has been annually repaid by the employment in handicrafts of considerably less than one-half of those sentenced to labour. Of this body 10 per cent. are employed in menial offices, for which no money payment or credit is allowed, and a very large proportion are inefficient and unable to work from old age and sickness. The ratio of the latter has seldom averaged less than 20 per cent., and has often considerably exceeded that proportion.

Two of the prisons, the gaols at Alipore and Hooghly, at the present time repay nearly, if not quite, the entire cost of maintaining them.

I am fully of opinion, that by the establishment of central prisons under special management, the whole cost incurred by the State in Lower Bengal for the maintenance of prisons would be repaid. This, although confessedly a secondary, is by no means an unimportant object of prison management. In 1856, at my suggestion, an exhibition of prison manufactures was held in the town hall of Calcutta, to which thirty-six gaols in the lower, and ten in the upper provinces contributed. The articles exhibited consisted chiefly of hand-woven cloth, towelling, carpets, rugs, blankets, horse clothing, saddlery, carpentry, iron work, tape, paper, coarse gunny cloth for rice and sugar bags, bamboo, rattan, and reed fabrics. Most of the articles exhibited were the produce of the ordinary industry of the prisons. Some of them were the work of convict artizans, who were skilled workmen before they became criminals. A great deal more was the result of the teaching of useful handicrafts in the prisons,

and exhibited good proof that gaols may, by proper and judicious management, become valuable industrial schools.

It is now, I believe, generally admitted by those best entitled to entertain and express an opinion on the subject, "that the discipline of labour is greater when productive, than when unproductive. The conversion of a hardened heinous offender, who is unusually an unproductive consumer, into a productive self-supporter, is no mean result already attained, and is the repayment of a part of the debt to society incurred by every offender against the laws.

"There is a very transparent fallacy involved in the argument, that to teach a criminal an honest trade, and to restore him to society a skilled workman, is to make the prison the artizan's stepping-stone to fortune, and to render the honest labourer anxious to graduate in the same productive school of industry."

The advantage is remote and uncertain. The penalties involved in compulsory separation from society, in strictly regulated task work, in a rigid denial of all the little indulgences that sweeten labour and render life agreeable, the dreary monotony of the same walls and the same work year after year, the entire absence of all control over their own acts, the sameness of the diet, without change or variety, however superior it may be in quality to the homely fare of the honest labourer; the early rest and early rising in unchanging succession, are immediate, positive, and palpable evils, easily imagined and readily realized. There is, then, a heavy balance against every well-regulated prison, with the smallest pretensions to strictness of discipline, as a desirable school of industry for a poor, ignorant, unskilled, but honest labourer.

The hard labour exacted in the gaols of Lower Bengal is similar in character to that of English penitentiaries, but less in amount, as might be expected from the lower physical power, and less nutritious diet of their inmates, as well from the influence of climate in diminishing the capacity for sustained muscular exertion.

I have no calculations to show the exact amount of these influences, but hope to be able to obtain them hereafter.

VII.—*Cost of Prisoners in Bengal.*

The cost of a prisoner in India generally is low, as compared with the expense of maintenance of a convict in Great Britain. The food and clothing of the former are much cheaper, and the wages of guards and other subordinate functionaries are very considerably beneath the expense of similar agency at home. All menial offices of every kind in the prisons of Bengal are performed by convict agency,—for such services no actual outlay is therefore incurred. At the same time, no money credit is allowed to the prisons on this account, in calculating the cost of maintenance of their inmates.

The greatest expenditure incurred is on account of food, which represents on an average at least 50 per cent. of the whole outlay. Of late years the great rise in the cost of food has been attended with a corresponding increase in the cost of clothing and other necessaries, as well as an augmentation of the wages of most of the free agents employed in prisons. The material prosperity of Bengal has increased so rapidly in the last twenty years, that the value of food, necessaries of all kinds, and the wages of labour, have more than doubled in that period. In travelling through the country in the discharge of my duties, the evidences of this unexampled prosperity have been abundantly manifest in the better clothing of the peasantry, a considerable improvement in their physical appearance, and a corresponding change for the better in the condition of their cattle. This is more particularly the case in those districts in which European energy and capital have been employed in the development of the resources of the country.

In the following table is shown the gross cost of maintenance of the prisoners of the lower provinces for every tenth year, from 1815 to 1855, and for each succeeding year to the 30th of April, 1860:—

STATEMENT showing the Expense incurred on Account of the Prisoners in the Lower Provinces of the Presidency of Bengal under every Head, as well as the Total Gross and Net Cost during the Years 1815-16, 1825-26, 1835-36, 1845-46, and 1855-60.

Years.	Total Average Number of Prisoners per Day.	Total Expense of Food per Annum.	Total Expense of Clothing per Annum.	Total Expense of Establish- ment and Guards per Annum.	Total Expense of Hospital Charges per Annum.	Total of all other Expenses and Contingencies per Annum.	Gross Cost per Annum.	Net Cost per Annum.
		R.	R.	R.	R.	R.	R.	R.
1815-16	17,978	268,829	41,651	63,516	36,057	62,852	472,905	—
'25-26	14,595	214,263	34,392	82,636	13,806	53,387	398,484	—
'35-36	14,166	255,608	32,831	251,534	12,079	72,763	624,815	—
'45-46	23,671	602,708	51,155	331,412	10,471	70,456	1,066,204	—
'55-56	19,102	391,890	49,045	260,562	16,352	97,086	814,938	724,079
'56-57	19,151	409,669	51,281	268,062	15,559	79,087	823,659	716,359
'57-58	18,880	421,557	49,135	242,193	18,592	55,124	786,604	674,804
'58-59	20,282	500,367	63,330	222,570	20,181	77,468	882,919	778,541
'59-60	19,003	454,770	63,033	199,289	16,423	61,592	795,109	621,166

In English currency, the figures are subjoined, the rupee being calculated at two shillings, its estimated standard value. Of late years, however, the actual market value of the rupee has seldom reached that standard.

	£
1815-16	47,290
'25-26	39,848
'35-36	62,481
'45-46	106,620
'55-56	81,493
'56-57	82,366
'57-58	78,660
'58-59	88,391
'59-60	79,510

In the same years the cost for each prisoner is annexed.

	£	s.	d.
1815-16	2	12	8
'25-26	2	14	8
'35-36	4	8	2
'45-46	4	10	0
'55-56	4	5	2
'56-57	4	6	0
'57-58	4	3	4
'58-59	4	7	6
'59-60	4	3	8

In the above calculations small fractions have been omitted.

The tabular statement which follows exhibits the detail of the above cost, under the heads of food, clothing, guards, hospital charges, and all contingent expenditure, in which tables are included the repairs of buildings, lighting, the purchase of brooms, baskets, and all implements used in cleansing, as well as the cost of the bedding of the convicts.

STATEMENT showing the Average Expense incurred on account of each Prisoner in the Lower Provinces of the Presidency of Bengal under every Head, as well as the Gross and Net Cost per Prisoner during the Years 1815-16, 1825-26, 1835-36, 1845-46, and 1855 to 1860.

Years.	Total Average Number of Prisoners per Day.	Total Average Expense of each Prisoner's Food per Annum.			Total Average Expense of each Prisoner's Clothing per Annum.			Total Average Expense of Establishment and Guards, on Account of each Prisoner per Annum.		
		R.	A.	P.	R.	A.	P.	R.	A.	P.
1815-16	17,978	14	15	3	2	5	1	2	8	6
'25-26	14,595	14	10	11	2	5	8	5	10	7
'35-36	14,166	18	—	8	2	5	1	17	12	1
'45-46	23,671	25	7	5	2	2	7	14	—	—
'55-56	19,102	20	8	3	2	9	1	13	10	3
'56-57	19,151	21	6	3·1	2	10	10·1	13	15	11·6
'57-58	18,880	22	5	3	2	9	8	12	13	3
'58-59	20,282	24	10	8	3	2	—	10	15	7
'59-60	19,003	23	14	11	3	5	1	10	7	9

STATEMENT showing Average Expense, &c.—Contd.

Years.	Total Average Expense of Hospital Charges on Account of each Prisoner per Annum.			Total Average of all other Expenses and Contingencies for each Prisoner per Annum.			Gross Average Cost of each Prisoner per Annum.			Net Average Cost of each Prisoner per Annum.		
	R.	A.	P.	R.	A.	P.	R.	A.	P.	R.	A.	P.
1815-16	2	—	1	3	7	11	26	4	10	—	—	—
'25-26	—	15	2	3	10	6	27	4	10	—	—	—
'35-36	—	13	8	5	2	2	44	1	8	—	—	—
'45-46	—	7	1	2	15	7	45	—	8	—	—	—
'55-56	—	13	8	5	1	4	42	10	7	37	14	5·9
'56-57	—	13	—	4	2	0·9	43	—	1·7	37	6	5·9
'57-58	—	15	9	2	14	8	41	10	7	36	12	6
'58-59	—	15	11	3	13	2	43	9	4	38	6	2
'59-60	—	13	10	3	3	10	41	13	5	32	11	—

In the five last years the net cost has been obtained by deducting the amount of realized profits on the sale of prison manufactures. The manner in which the profit referred to is calculated, is explained in another section of this paper. The net annual cost has averaged during the period mentioned, in round numbers, about 3*l.* 12*s.* 6*d.* a prisoner.

I have not attempted to institute any comparison between the cost of prisoners in India and in England, because the conditions are so widely different that no comparison can fairly be made.

The prevention of extravagance and waste are of obvious necessity in the management of prisons, but mere economy, when unattended with efficiency and the due fulfilment of all the purposes for which criminals are subjected to restraint and punishment, is of more than questionable advantage. The cost of the vast agency needed for the protection of society, in the apprehension and trial of offenders against the laws, and in the prevention of crime, is so great that no addition of cost should be grudged to render the punishment, which is the main object of apprehension and trial, effectual. On this subject it has been aptly remarked, that it would be better to allow half the crimes committed to pass unnoticed, and to punish effectually those that are noticed, than to notice all and to punish none effectually.

To place the prison discipline of Bengal on the footing which now obtains in Great Britain, and without which it cannot be regarded as efficient, will render a considerable outlay in suitable places of confinement necessary, with a corresponding increase in the cost of the special agency needed to work such a system with advantage and success.

Although a point of secondary importance, as compared with the efficiency of punishment, I have no doubt that the whole additional

cost could be covered by the more profitable employment of the convicts ; and this would be associated with a great saving of human life, and a vastly improved system of prison discipline.

VIII.—*Escapes and Re-apprehensions.*

In the subjoined table are enumerated the escapes and recaptures of prisoners from 1854 to 1860. The large increase of escapes in 1857 and 1858, was due to the breaking open of several of the prisons in Behar and the S.W. Frontier, and of one gaol in Eastern Bengal, by the mutineers of the Bengal army.

Year.	Average Strength of Prisoners.	Escapes.	Ratio of Escapes to Strength.	Re-captures.	Ratio of Recaptures to Escapes.	Amount paid for Recaptures.			Average Amount of each Recapture.		
						R.	A.	P.	R.	A.	P.
1854-55	19,964½	155	0·78	136	87·10	1,615	—	—	11	14	0
'55-56	20,246½	196	0·97	129	65·81	2,220	—	—	17	3	4·2
'56-57	19,248	183	0·951	120	65·573	1,339	—	—	11	1	9
'57-58	18,880	1,612	8·54	956	59·30	1,384	—	—	1	7	1·9
'58-59	20,282	1,447	7·13	902	62·33	3,312	12	—	3	10	9·1
'59-60	19,003	259	1·36	86	33·20	3,003	15	11	34	14	10·6

The wholesale evasions above recorded are partly due to the inefficiency and corruption of the prison guards, and in part to the utter insecurity of many of the prisons themselves. From the only prison in Lower Bengal which is really secure, the great gaol at Alipore, the escapes are as rare and as difficult of accomplishment as in the model prisons of Europe. The only means of remedying this undesirable state of insecurity, is the establishment of properly constructed central prisons, with efficient guards, and above all with special officers in charge of the prisons who have no other duties to perform. Any radical reform with the existing prison agency and prisons is simply impracticable.

IX.—*Education of Prisoners in Bengal.*

The state of education of all persons accused and convicted of crimes in Lower Bengal, has only recently been ascertained.

Of 27,604 persons arrested from October, 1858, to April, 1859, the following particulars were ascertained.

Of the convicts sentenced to imprisonment with labour, 1,864, or about a seventeenth of the whole number could read and write, viz.:—

	Males.	Females.
Hindoos	1,139	7
Mussulmans	438	—
Other denominations	100	—
	1,677	7

Of those sentenced to simple incarceration without labour, 1,101, or about 4 per cent. of the whole number could read and write, of these there were,—

	Males.	Females.
Hindoos	789	1
Mussulmans	271	—
Other denominations	40	—
	1,100	1

Of civil prisoners (debtors and revenue defaulters), 169 could read and write,—

	Males.
Hindoos	125
Mussulmans.....	32
Other denominations	12
	169

Of the entire number, 587 were reported to have been well educated for their position in life. In the majority of cases this amounted merely to the ordinary curriculum of a Patshala, or common village school, in which moral training is unknown.

Those who were altogether ignorant amounted to 23,815 males, and 248 females, or about 87 per cent. of the whole number.

In 1859-60, of 52,068 persons admitted to the prisons 2,644, or 5·08, could read and write: of these there were,—

Sentenced to labour 941 or 1·81 per cent., viz.:—

	Males.	Females.
Hindoos	540	—
Mussulmans	253	—
Other denominations	147	1
	940	1

Sentenced without labour 1,463 or 2·81 per cent.

	Males.	Females.
Hindoos	1,065	—
Mussulmans	298	—
Other denominations	100	—
	1,463	—

Of the civil prisoners 240, or 0·44 per cent. all of whom were males.

	Males.
Hindoos	179
Mussulmans	39
Other denominations	22
	<hr/>
	240
	<hr/>

Of the whole number in custody 814, or 1·56 per cent. were represented to have been well educated for their position in life.

The remaining 47,252 males, and 1,352 females, or 93·34 per cent. were entirely ignorant.

To none of the prisons under my charge are religious instructors or teachers of any kind attached. I myself doubt entirely the efficacy, as a moral instrument, of any system of instruction, from which the teaching of religion is, and for obvious reasons, must, in the existing state of India, be excluded. The Government of India has recently ruled that a prison in the eastern empire of Great Britain is not a fit field for missionary enterprise, and has forbidden all attempts to make proselytes among the prisoners confined in them. Every prisoner of every religious persuasion is allowed, if he chooses or wishes, at certain times, and subject to the ordinary rules for the maintenance of discipline, to see a minister of the Christian religion, and to receive religious instruction from him upon expressing a desire to that effect ; but unrestricted admission to the gaols for the express purpose of conversion is not allowed. Secular instruction, for the mere purpose of benefiting a prisoner on his release, without exerting on him any reformatory influence, does not appear to me to be the kind of education required for the ignorant members of the criminal classes in Bengal. If such instruction were likely to restore them to society better and wiser men, and less liable to commit crime than they were in a state of ignorance, it ought undoubtedly to be attempted, but the results of prison education in those parts of India where it has been tried for some years past, do not encourage the belief that such is the case. Be that, however, as it may, the introduction of any scheme of education in the prisons of lower Bengal with the existing agency, is impracticable. Useful trades and habits of industry are taught and inculcated, as much as can be accomplished by the constant employment of convicts sentenced to labour, in manufactures and industrial pursuits generally, and to this extent is reformation by such means at present limited.

X.—*Concluding Remarks.*

In the record submitted above, such points connected with prison discipline in Lower Bengal as are susceptible of the application of numbers, are alone touched upon. The important questions

of solitary confinement, classification, the effects of imprisonment on different classes of criminals as modified by their social condition and education, the existing state of moral feeling in Bengal in regard to crime and punishment, with the many collateral relations of those questions, are of necessity left unnoticed.

At the last meeting of the International Statistical Congress, the whole subject of the judicial statistics of British India was omitted, for want of data and of uniformity of system in the returns from different provinces and presidencies. Now that the Government of India has been transferred to the Crown, and a record of its administration is annually submitted to Parliament, and is thus brought under the immediate scrutiny of the British public, it is to be hoped that uniformity of system will be introduced, and that the information at present wanting, will hereafter be forthcoming. There is nothing whatever in the circumstances of the different Presidencies that in any way prohibits the introduction of uniformity; there is very much which renders it desirable, and even necessary. If such statistics be deemed absolutely necessary for wise and permanent legislation in Great Britain, where the social condition of the people is so well known and so carefully studied, how much more important do they become in regard to a country of which so little is known, and which has been committed to the custody of England for the highest of all human purposes.

It is only by the acquisition of an intimate knowledge of the moral and material wants of the vast population of British India, and of the best and wisest means of raising them in the scale of nations, that England can fulfil the responsible charge intrusted to her.

OBSERVATIONS *upon the* STATISTICS of ILLEGITIMACY. *By* W. G. LUMLEY, ESQ., LL.M., *Barrister, Assistant Secretary of the Poor Law Board, and one of the Honorary Secretaries of the Society.*

[Read before the Statistical Society, 18th March, 1862.]

IN a paper by Mr. Acton, read before the Society in 1859, some complaint was made as to the want of what he termed the literature of Illegitimacy in England; and in that paper he gave an interesting and detailed account of the results of some inquiries as to this subject in certain metropolitan parishes. He drew a sad picture of the state of the morals in this metropolis, and expressed, in severe terms, his disapproval of the law which provides an inadequate remedy for the mothers of illegitimate children.

It is believed that the opinions so expressed are very commonly entertained, and there is a general idea that the amount of illegitimacy existing in this country is very large. A similar opinion has existed in other countries. The compiler of the Vital Statistics of Prussia, whose report was abstracted by Sir F. Goldsmid, in a paper read before the Society in 1860, makes the same remark as to the general estimate which prevailed in that country. The result of his researches induced him to express his conviction that that estimate was unfounded.

The object of the present paper is to bring together as much information as could be obtained by the compiler upon this subject, so that it might be ascertained what is the real extent of this social disorder in this country; how it differs in the various parts of the kingdom; and how, in this respect, England can bear a comparison with other countries.

The result appears to the author to be satisfactory. Without for a moment undervaluing the statements often expressed, of the grievous consequences to the mothers and their offspring which result from illegitimacy, he rejoices to find that the amount of the evil is below what he believes to be the general estimate, and that this country holds a high position when compared with other countries.

It is proposed to investigate the subject under the following heads:—

1. Of the Statistics of Illegitimacy in England generally;
2. In the Different Counties and Towns of England;
3. Of the Influence of the Seasons of the Year;
4. Of the Distinction between the Sexes;

5. Of Pauper Illegitimacy ;
6. Of Illegitimacy in Scotland ;
7. Of Illegitimacy in Foreign Countries.

I.—Of the Statistics of Illegitimacy in England and Wales generally.

It is impossible to ascertain, with complete accuracy, the number of illegitimate births in England and Wales during the year. The Reports of the Registrar-General give very full accounts from 1842 to the present time of the children who are registered in such a manner as to disclose their illegitimacy, but it is certain that a great number of bastard children are born who are not registered ; others who are adulterine bastards are registered as legitimate ; while many who are the offspring of parents living together as married, though not so, are registered in such a manner as to appear to be legitimate.

The registration of births is provided for by the Statute 6 and 7 Will. IV, cap. 86, which directs the father or mother of a child to give the particulars therein required to be known and registered touching the birth of the child. The particulars are set forth in a schedule appended to the Statute, and among others are the *name and surname of father, name and maiden name of mother, rank or profession of father*. There is no column which refers to the *status* of the child. In the regulations issued to the Registrars of Births, it is laid down that “if the informant declines stating the name of the father, or there shall be reason to believe that the child is illegitimate, the Registrar shall not press inquiry on that subject, but shall leave the 5th and 6th columns blank.” These are the columns which refer to the *father*. Where, therefore, these columns are left blank, or where the father’s name and the mother’s name are different, the registrar’s entry leads to the inference of illegitimacy. But if the woman has assumed the name of the man with whom she is living, as is very frequently the case, there is nothing to prevent the entry of her children as legitimate ; and it would doubtless be found, if it were practicable to investigate the fact, that a considerable addition should be made on this ground to the numbers of illegitimate children annually reported by the Registrar-General.

In regard to the non-registered children it is very doubtful whether they are now numerous. In 1859 the total number of births registered was 689,881, and this seems to be so large a number when reference is made to the population of the country as to exclude the notion of any considerable surplus of births unregistered. At the same time it must be remembered that the ordinary time of registration is extended to six weeks after birth, consequently many children die before the lapse of that time, and hence are not registered. This observation, however, applies to all classes of children, as well legitimate as illegitimate.

But it is sometimes alleged that the circumstances attending the birth of the latter class lead to an inference that the proportion of deaths among the early-born infants is greater in reference to illegitimate than to legitimate children. It is by no means clear whether this can be established. No doubt the circumstances attending such births are adverse, yet it is to be remembered that the mother is generally in the prime of life, and in the lowest classes is probably not subject to so much privation as the wife of a poor labourer or mechanic. The registers of deaths would not elucidate this question, because they do not disclose the parents of the deceased, and therefore would not show the *status* of these young children, whose deaths are registered.

But having made these preliminary observations in regard to the probable incompleteness of the returns upon which the Reports of the Registrar-General are founded, it is proposed now to examine those reports as they have been drawn up in regard to this particular subject of inquiry. Whether the result is satisfactory in regard to the moral conduct of the population of this country so far as it is to be deduced from the prevalence of illegitimacy, is a question dependant upon the comparison with the state of other countries, which will appear hereafter.

The registration of births and deaths commenced in 1838, but no distinct analysis of the births, as regards legitimacy, was made until the latter half-year of 1841. From that time down to 1859, the last published returns,—that is, for a period of nineteen years, complete and distinct returns of the two classes of births have been given, and the following table is obtained from the Reports of the Registrar-General:—

Year.	Gross Number of Registered Births.	Illegitimate Births.			Proportion per Cent. of Illegitimate Births to Gross Number Registered.
		Males.	Females.	Total.	
1841	248,554	8,223	7,616	15,839	6·37
'42	517,739	17,810	16,986	34,796	6·7
'43	527,325	—	—	36,059	6·8
'44	540,763	—	—	36,978	6·8
'45	543,521	19,413	18,828	38,241	7·0
'46	572,625	19,735	18,794	38,529	6·7
'47	539,965	18,413	17,712	36,125	6·7
'48	563,059	18,580	18,167	36,747	6·5
'49	578,159	20,049	19,285	39,334	6·8
'50	593,422	20,488	19,818	40,306	6·8
'51	615,865	21,397	20,603	42,000	6·8
'52	624,012	21,734	20,748	42,582	6·8
'53	612,391	20,333	19,430	39,763	6·5
'54	634,405	20,978	19,763	40,741	6·4
'55	635,043	20,871	19,912	40,783	6·4
'56	657,453	21,655	20,996	42,651	6·5
'57	663,071	21,931	21,071	43,002	6·5
'58	654,481	22,304	21,001	43,305	6·6
'59	689,881	22,994	21,757	44,751	6·5

It thus appears that the number of illegitimate births has fluctuated during the whole of the period between the ratios 6 and 7 per cent., with a uniformity which seems almost incredible.

In the year 1842, 67 out of every 1,000 births were illegitimate. In 1852, the number was 68 out of every 1,000; and in 1859 the number was 65.

The Registrar-General, in his different reports, has generally made some special reference to this subject; but he entered very fully into an examination of it in the Sixth Annual Report, where he devoted much attention to the returns in England, and made a comparison with the returns from other countries. He there showed that the computation for England previously existing, which had been made by the late Mr. Rickman, at the census of 1831, was far too low. That computation had been based upon the returns made to this gentleman by clergymen, of children born in their parishes, and gave a return of 20,039 illegitimate children. But these were in many instances only the numbers of children who were baptized, and it is obvious that many illegitimate children were never brought to the font. The Registrar-General, comparing the returns for 1842 with Mr. Rickman's estimate, points out the great excess of the former over the latter, as being 74 per cent., while the increase of the population was only 17 per cent.

He then continues. "This difference may, perhaps, among other causes, be ascribed to the actual increase in the proportion of illegitimate children during the operation of that important change in the Poor Law, which threw the charge of maintaining their illegitimate offspring upon the mothers. But to whatever cause the increase may be ascribed the relative numbers of legitimate to illegitimate births and baptisms returned in 1830 and 1842, show in the latter year a relative as well as an absolute excess of illegitimate children." The meaning of this passage is, that illegitimacy increased in England in the period of these twelve years.

This is the inference drawn by the Registrar-General from the comparison of those two years. But when the above table is examined, which gives the return for a period of nineteen years with so much uniformity, and closes with a decline in the relative numbers, it is rather to be inferred that the difference was to be attributed to the imperfect state of the early returns rather than to any change for the worse in the conduct of the population during a period in which it is generally considered that there was great moral and social improvement.

A Parliamentary paper presented to the House of Lords in 1839 shows the number of illegitimate children registered by the clergymen of the different parishes in the counties of Bedford, Berks, Bucks, Essex, Hertford, Kent, Oxford, Southampton, Sussex, and Wilts,

during the three years ending December 31, 1834, and the three years ending December 31, 1837. The totals in the different counties are as follows :—

	Total Registered during Three Years ending Dec. 31, 1834.	Annual Average.	Total Registered during Three Years ending Dec. 31, 1837.	Annual Average.
Bedford	371	124	324	108
Berks	717	239	862	287
Buckingham	522	174	636	212
Essex	994	331	1,184	393
Hertford	447	149	538	179
Kent	1,428	476	1,360	453
Oxford	709	236	804	268
Southampton	1,122	374	1,248	316
Sussex	1,185	395	1,324	441
Wilts	1,084	361	1,268	322
	8,579	2,859	9,548	3,182

The annual increase in the latter period was 323. This increase was probably due rather to the greater attention which was paid to parochial matters, and the conduct of the poor, than to any falling off in the morality of the country. From a subsequent part of this paper, where the numbers registered in the several counties for the year 1842 are shown, it will appear that the fourth column must have been very far below the truth. Much more, therefore, must the previous average have been inaccurate. It has also been alleged, that after the introduction of the new Poor Law, women had less objection to admit the birth of an illegitimate child, as not being exposed to any peculiar treatment on that account, and therefore she more readily brought her child to be baptized.—See “Second Annual “Report of the Poor Law Commissioners,” p. 18. However, the question as to the effect of the changes relating to the law of pauper bastardy will be considered hereafter.

Some continental nations show in their statistical tables the numbers of children who are *still-born*, or born dead. No such returns are obtained in England or Scotland, and there are no means of ascertaining what are the numbers of such births, nor consequently their effect, in these countries, upon the relative proportions of illegitimate and legitimate children. It is alleged by some that this is a serious default, and that if such returns were obtained the result would be very unfavourable to the illegitimate class. This is a purely speculative opinion with reference to England.

M. Legoyt, “Annuaire de la Economie Politique, &c., pour “1858,” p. 8, gives a table showing the numbers of the total births and of the still-born children in France from 1851 to 1857, and the

proportions between the two classes. In 1857 the total births numbered 982,614; of these, 41,905 were still-born, in the ratio of 4·26 to 100 births. He then observes that the still-born are more numerous in the cases of illegitimacy than of legitimacy; the ratio being 7·15 to 100, instead of 4·26.

The actual numbers of the illegitimate still-births are not given for France; but in the same volume, p. 260, where the statistics of Belgium are set out, the progress of the population is shown for 1858 thus :—

	Births, excluding Still-born.		Still-born.	
Legitimate — Males	68,593		3,593	
„ Females	65,080		2,676	
	133,673		6,269	
Illegitimate—Males	5,699		453	
„ Females	5,702		346	
	11,401		799	
Total—Males	74,292	—	4,046	—
„ Females	70,782	—	3,022	—
Grand Total.....	145,074	—	7,068	—

It here appears, that though there was a large excess of male births over the female, the result is singular in this respect, that the number of female illegitimate births exceeded that of the males, but there was, however, nearly a fourth more illegitimate male still-births than female.

The total still-born to those born alive is 4·9 to 100, but the still-born illegitimate to the illegitimate living births was 7 per cent., which gives much the same result in Belgium as in France.

It is easy to understand that in those countries, where the relief to the destitute is organized with so much less care than in England, and where it is alleged pregnant women betake themselves to the towns for their delivery, many circumstances and accidents will occur to destroy life before parturition. But in England, the administration of the Poor Laws is so prompt, and as a general rule medical relief is supplied to the destitute, however faulty may have been the conduct which led to the destitution, so readily, either at the habitation of the destitute person or in the well-appointed comfortable workhouse, that there is much less ground for the distinction, as regards still-birth, between those two classes in this country.

But two questions may be submitted for inquiry. Do still-births prevail mostly among *primiparæ*? and, Is the ratio of first-births to successive births highest among the illegitimate? If both these questions be answered in the affirmative, some explanation may

be given of the facts now under consideration. On the first question the author has no information,* but as to the latter, it seems the probabilities are strongly in support of the affirmative, though no statistical returns of which he is aware prove such to be the fact.

The criminal statistics are frequently adverted to in connection with the subject of illegitimacy, as it is averred that a large amount of child-murder is attributable to its existence. This cannot be proved, nor can it be negatived, from the state of the judicial statistics relating to crimes in England. The returns relating to crime set forth the general terms of murder and manslaughter, but do not further discriminate.† Hence, it is impossible to distinguish the cases of trials for infanticide, still less those where illegitimate children are murdered by their mothers. But there is an offence under which this crime, in fact, is often punished, either from failure of proof or the leniency of the tribunal—namely, the concealing the birth of a child, and of this offence a record has been kept, and from the Criminal Returns published by the Home Office, it appears that in the three years, 1857, 1858 and 1859, the numbers of cases were as follows for England and Wales:—

	1859.	1858.	1857.
Crimes committed	137	150	114
Persons apprehended	134	124	107
Committed (or bailed) for trial	106	104	90

Although it is impossible not to feel regret at so much crime as these figures indicate, it must be remembered that in each of these years the number of illegitimate children registered was upwards of 43,000, and therefore the return does not support the outcry as to the vast amount of infanticide prevailing in this country.

Here may be mentioned, though the remark applies to a subsequent part of these observations that the Police returns for the same years show that in 1857 there were 5,816 prosecutions for disobeying orders in bastardy; in 1858, the number was 5,050, and in 1859, the number was 4,743. For the same years the prosecutions of prostitutes for violation of the Vagrancy Act were respectively 8,771, 9,997 and 7308.

During the period for which the above table of illegitimacy has been

* I have learnt from Dr. Tyler Smith, President of the Obstetric Society, that death occurs more frequently in *primiparæ* to the mother and her infant than in subsequent labours, and that the proportion of deaths during labour is greater among males than among females, in consequence of the male foetal head being larger in circumference than that of the female.—W. G. L.

† See, however, a Parliamentary Return as to the inquests on children under 2 years of age in the Metropolis, presented to Parliament in the Session 1862, No. 177.

obtained the marriages in England have fluctuated slightly, namely to the extent of one-tenth per cent. The marriage-rate from 1844 to 1859, has ranged from 79 per 1,000 of the population to 89 per 1,000. The highest rate was in 1853, when the rate of illegitimacy was almost the lowest namely 65 in the 1,000, and the lowest marriage-rate was in 1847 and 1858, in which years it was equal, when the rate of illegitimacy was respectively 66 and 67 in the 1,000. It must not be overlooked that the marriages belong to the years in which they are celebrated; illegitimacy for three-fourth parts belongs to the year preceeding that of the birth.

The Registrar-General's Reports supply this table.

Population and Marriages in England and Wales.

Years.	Estimated Population.	Marriages.	Ratio of Marriages to the Population.
1844.....	16,520,000	132,249	·80
'45.....	16,721,000	143,743	·86
'46.....	16,925,000	145,664	·86
'47.....	17,132,000	135,845	·79
'48.....	17,340,000	138,230	·80
'49.....	17,552,000	141,883	·81
'50.....	17,766,000	152,738	·86
'51.....	17,983,000	154,206	·86
'52.....	18,205,000	158,439	·87
'53.....	18,403,000	164,520	·89
'54.....	18,618,000	159,349	·86
'55.....	18,787,000	151,774	·86
'56.....	19,045,000	159,262	·84
'57.....	19,305,000	159,097	·82
'58.....	19,523,000	154,500	·79
'59.....	19,745,000	167,900	·85
'60.....	20,061,725*	170,305	·85

* Number by the census of 1861.

Thus in 1844, out of every 62 persons one married, and in 1860 one out of every 59; or in other words there was in 1844 one marriage to 125 persons; and in 1860 one to 119 persons. It cannot be doubted that the great improvement in the material condition of the people of this country is exhibited in the progress of lawful unions, and in the decline, slight though it may be, of illegitimacy.

II.—Of Illegitimacy in the different Counties of England and Wales.

It is now convenient to examine the state of illegitimacy in the different counties of England and Wales where it will be seen great discrepancies arise. This part of the subject is naturally one of much interest, because no cause occurs readily to account for such discrepancies as are exhibited in the returns. Various tables have therefore been prepared to bring together the different facts and coincidences connected with the subject.

The first table shows—

*The Total Number of Illegitimate Children Registered in the Years
1842, 1851, 1857, 1858, and 1859.*

Names of Counties.	1842.	1851.	1857.	1858.	1859.
ENGLAND.					
Bedford	316	340	392	394	405
Berks	410	457	487	430	498
Buckingham	343	358	313	319	354
Cambridge	431	467	482	454	472
Chester	1,089	1,274	1,262	1,251	1,257
Cornwall	489	661	651	689	736
Cumberland	632	684	667	790	798
Derby	626	712	703	752	800
Devon	787	935	932	989	1,108
Dorset	346	372	385	368	370
Durham	681	950	1,049	1,099	1,220
Essex	534	778	678	666	681
Gloucester	737	821	770	766	721
Hereford	292	383	314	283	256
Hertford	378	566	382	391	409
Huntingdon	106	126	113	101	128
Kent*	904	982	964	970	1,082
Lancaster	5,592	5,759	5,965	5,851	5,894
Leicester	501	699	638	681	676
Lincoln	756	985	1,109	1,022	1,061
Middlesex*	168	258	219	235	266
Monmouth	227	322	375	349	347
Norfolk	1,214	1,599	1,435	1,430	1,567
Northampton	442	536	470	506	470
Northumberland	594	823	860	884	907
Nottingham	876	955	1,036	1,020	1,044
Oxford	385	453	418	412	420
Rutland	50	49	43	64	49
Salop	614	692	789	743	814
Somerset	854	991	858	894	909
Southampton	663	832	772	790	809
Stafford	1,168	1,675	1,782	1,902	1,808
Suffolk	804	1,002	888	883	960
Surrey*	321	376	346	318	404
Sussex	615	724	725	743	769
Warwick	671	1,023	1,072	1,112	1,091
Westmoreland	152	164	150	156	175
Wilts	525	563	539	499	545
Worcester	752	611	594	656	647
York, East Riding	506	563	715	682	752
„ North „	501	523	561	626	632
„ West „	2,842	3,554	3,878	3,873	3,883
Metropolis	1,925	3,203	3,748	3,752	3,902
WALES.					
North	807	947	915	930	1,027
South	1,170	1,458	1,553	1,580	1,619
	31,796	42,000	43,002	43,305	44,751

* In the above table, Kent, Middlesex, and Surrey, apply to the parts of those counties which are exclusive of the Metropolis. In the returns for 1842 the populous district of Dudley is comprised in Worcestershire, but in the subsequent years it is comprised in Staffordshire.

It is proper to observe upon this table that though there is an increase in the numbers of the illegitimate children registered in these succeeding years there is not an increase in the proportion of illegitimate over the legitimate, as will be seen in p. 221, where it appears that the proportion in 1842 was 6·7, while in 1859 it was only 6·5, though there was actually one-fourth more illegitimate children registered in 1859 than in 1842.

This table though it shows great variations in the numbers in the different counties does not in itself enable the reader to perceive any particular result. But the Registrar-General has caused calculations to be made for several years of the proportions in the different counties between the births of the two classes of children, and the tables published in his reports show the proportions of the illegitimate children to every 100 registered births in the years 1842, 1845, 1851, 1852, 1855, 1859, in the different counties.

Those tables now follow together with two additional columns taken from the Report on the Census for 1851, one of which shows the density of the population in the several counties, and the other the number of persons inhabiting each house therein:—

Number of Illegitimate Births to every 100 Births Registered.

Names of Counties.	1842.	1845.	1851.	1852.	1855.	1859.	Number of Persons to each House in 1851.	Density of Popu- lation at 1851.
ENGLAND.								Acre to 1 person.
Bedford	7·7	8·3	7·1	8·1	7·8	8·0	5·1	2·4
Berks	7·3	8·1	7·4	7·9	6·9	7·4	5·1	2·7
Buckingham	7·3	7·2	7·3	7·7	6·3	6·9	4·9	2·9
Cambridge	7·2	7·0	7·1	7·4	7·9	7·4	5·0	2·8
Chester	9·4	9·3	8·5	8·3	8·5	7·6	5·3	1·6
Cornwall	4·2	5·1	5·5	5·2	5·1	5·8	5·2	2·5
Cumberland.....	11·4	11·1	10·5	10·7	10·6	11·4	5·3	5·1
Derby	8·1	8·3	8·0	8·0	7·6	7·7	5·0	2·2
Devon	5·1	5·5	5·4	5·7	5·7	6·2	5·7	2·9
Dorset	6·7	7·1	6·5	7·2	6·5	6·2	5·1	3·4
Durham	5·6	6·3	5·7	6·3	5·6	5·6	6·0	1·6
Essex	5·3	5·7	6·9	7·1	6·0	5·4	5·0	2·9
Gloucester	6·1	6·6	6·3	6·2	5·5	5·2	5·3	1·8
Hereford	10·6	9·7	10·2	10·6	9·9	8·1	4·8	4·6
Hertford	7·0	7·4	7·9	7·7	6·7	7·1	5·1	2·3
Huntingdon.....	5·1	5·7	5·8	6·3	4·6	6·2	4·8	3·6
Kent	6·3	6·1	6·4	6·6	5·2	6·1	5·7	1·7
Metropolitan	2·8	2·9	2·7	—	—	—	—	—
Lancaster.....	8·7	8·2	7·2	7·0	6·6	6·6	5·8	0·6
Leicester	7·2	8·7	8·1	8·2	8·0	8·0	4·7	2·2

Number of Illegitimate Births to every 100 Births Registered—Contd.

Names of Counties.	1842.	1845.	1851.	1852.	1855.	1859.	Number of Persons to each House in 1851.	Density of Popu- lation at 1851. Acre to 1 person.
ENGLAND—contd.								
Lincoln	6.3	6.8	7.4	7.7	7.8	7.8	5.0	4.4
Middlesex	4.4	5.6	5.8	4.8	4.5	4.7	7.9	0.1
Metropolitan	3.4	3.8	4.2	4.1	4.0	—	—	—
Monmouth	4.6	5.0	5.3	4.8	4.6	4.7	5.4	2.4
Norfolk	9.9	10.8	11.1	11.4	10.1	10.7	4.8	3.1
Northampton	6.4	6.3	7.1	6.4	5.8	5.7	4.8	3.0
Northumberland	6.8	7.8	7.7	7.7	8.0	7.7	6.3	4.1
Nottingham	9.9	9.8	9.5	9.5	8.8	8.9	4.9	1.9
Oxford	7.5	7.0	8.2	8.0	7.0	7.2	5.0	2.8
Rutland	6.8	7.7	6.6	5.7	7.6	6.7	5.0	4.2
Salop	9.3	10.5	9.9	9.6	9.8	9.8	5.0	3.6
Somerset	6.2	6.7	7.0	6.9	6.3	6.3	5.2	2.4
Southampton	6.4	6.3	6.0	6.8	5.8	5.7	5.3	2.7
Stafford	7.4	7.7	6.7	6.7	6.2	5.9	5.2	1.2
Suffolk	8.1	10.8	8.8	8.1	8.4	8.2	4.9	2.8
Surrey	5.2	6.5	6.3	5.2	4.5	5.0	6.3	0.7
Metropolitan	2.7	3.5	4.0	—	—	—	—	—
Sussex	6.8	7.1	6.7	7.0	6.7	6.8	5.7	2.8
Warwick	5.1	5.6	5.9	5.9	5.4	5.4	4.9	1.2
Westmoreland	9.3	10.2	9.1	10.4	10.0	9.7	5.2	8.3
Wilts	7.3	7.4	7.2	7.4	7.5	7.1	4.9	3.4
Worcester	6.2	6.5	7.1	7.2	6.4	6.4	5.0	1.7
York, East Riding	6.9	7.4	6.7	7.7	7.3	8.0	4.9	3.5
„ North „	8.9	9.0	8.4	8.3	8.6	8.9	4.8	6.3
„ West „	7.1	7.4	6.9	6.7	6.6	6.9	5.0	1.3
Metropolis	—	—	—	—	—	4.2	—	—
WALES.								
South	6.9	8.11	7.4	7.3	7.1	6.4	—	—
North	7.5	8.2	8.1	8.3	7.8	8.1	—	—

From these tables the relative positions of the several counties in reference to the density of their population, and to number of the occupiers of the houses, and the number of illegitimate births appear to be according to this table.

Names of Counties.	Position							
	In regard to Illegitimacy						In regard to the Density of the Population in 1851.	In regard to the Number of Persons to a House in 1851.
	In 1842.	In 1845.	In 1851.	In 1852.	In 1855.	In 1859.		
ENGLAND.								
Bedford	9	10	18	9	12	8	11	5
Berks	12	12	15	11	18	12	13	5
Buckingham	12	16	16	12	23	15	15	3
Cambridge	13	18	18	13	11	12	14	4
Chester	4	7	8	7	8	11	5	7
Cornwall	30	28	30	27	32	23	12	6
Cumberland.....	1	1	2	2	1	1	24	7
Derby	8	10	12	10	13	10	9	4
Devon	27	27	31	26	27	21	15	9
Dorset	19	17	23	15	21	21	18	5
Durham	24	23	30	23	28	25	5	11
Essex	25	25	20	16	25	26	15	4
Gloucester	23	21	25	24	29	27	7	7
Hereford	2	6	3	3	4	7	24	2
Hertford	16	15	13	12	19	14	10	5
Huntingdon.....	27	25	29	23	33	21	20	2
Kent	21	24	24	21	31	22	6	9
Lancaster.....	7	11	17	17	20	18	1	10
Leicester	14	9	11	8	10	8	9	1
Lincoln	21	19	15	12	12	9	23	4
Middlesex*	29	26	29	28	34	29	—	—
Monmouth	28	29	32	28	33	29	11	8
Norfolk	3	2	1	1	2	2	17	2
Northampton	20	23	18	22	26	24	16	2
Northumberland....	18	13	14	12	10	10	21	12
Nottingham.....	3	5	5	6	6	5	8	3
Oxford.....	10	18	10	10	17	13	14	4
Rutland	18	14	22	26	13	17	22	4
Salop	5	3	4	5	5	3	20	6
Somerset	22	20	19	18	23	20	11	7
Southampton	20	23	27	19	26	24	13	6
Stafford	11	14	21	20	24	22	3	3
Suffolk.....	8	2	7	9	9	6	13	12
Surrey	26	22	26	27	34	27	2	9
Sussex	18	17	21	17	19	16	14	3
Warwick	27	26	28	25	30	26	3	6
Westmoreland.....	5	4	6	4	3	4	26	3
Wilts	13	15	17	13	14	14	18	4
Worcester	22	22	18	15	22	19	6	3
York, East Riding	17	15	21	12	15	8	19	5
„ North „	6	8	9	7	7	5	25	2
„ West „	15	15	20	20	20	15	4	4
WALES.								
North	10	12	11	7	12	7	—	—
South	17	11	15	14	16	19	—	—
Highest number	30	29	32	28	34	29	26	12

* The county of Middlesex embracing the Metropolis, is so peculiar in respect of the density of the population and the number of its occupants, that it is omitted from the columns which relate thereto.

With the view of giving an opportunity for referring to the character of the labouring classes in the several counties a table has been prepared from other returns also supplied by the Report on the Census of 1851, showing the distinctions between the town and rural populations in the different counties, and arranged in the order of town population, with the position of the respective counties so arranged in reference to their illegitimacy.

Counties.	Percentage of Town Population.	Percentage of Rural Population.	Number of Towns of 2,000 and upwards.	Position as regards Illegitimacy in 1859.
Lancaster.....	66	34	32	18
Warwick	65	35	9	26
Gloucestershire	55	45	8	27
Staffordshire	55	45	16	22
Yorkshire, East Riding	55	45	7	8
Sussex	53	47	12	16
Hampshire	49	51	12	24
Northumberland	49	51	6	10
Kent, <i>extra Metrop.</i> ...	48	52	19	22
Cheshire	48	52	12	11
Yorkshire, West Riding	46	54	21	15
Wiltshire	45	55	14	14
Devonshire	45	55	24	21
Cumberland.....	43	57	11	1
Durham	42	58	9	25
Leicestershire	39	61	8	8
Buckinghamshire.....	37	63	7	15
Norfolk	36	64	12	2
South Wales	34	66	15	19
Oxfordshire	32	68	6	13
Shropshire	32	68	8	3
Worcestershire	32	68	9	19
Nottinghamshire	32	68	6	5
Cambridgeshire	31	69	8	12
Dorsetshire	31	69	10	21
Somersetshire	31	69	12	20
Berkshire.....	30	70	10	12
Bedfordshire	30	70	5	8
Suffolk	29	71	10	6
Northamptonshire	28	72	9	24
Monmouthshire	28	72	6	29
Derbyshire	27	73	6	10
Surrey, <i>extra Metrop.</i> ..	26	74	10	28
Essex	26	74	11	26
Lincolnshire	26	74	14	9
Yorkshire, N. Riding	26	74	7	5
Huntingdonshire.....	25	75	5	21
Herefordshire	25	75	4	7
Westmoreland	25	75	1	4
Hertfordshire	24	76	8	14
Cornwall	22	78	12	23
North Wales	22	78	18	7
Rutlandshire	20	80	2	17
Middlesex, <i>ex. Metrop.</i>	14	86	6	29

All these tables exhibit singular results. Some counties show a constantly high rate of illegitimacy, and some as constantly have a low rate; in others, however, there are great fluctuations. Adjoining counties in many instances greatly differ, while in other instances the characters of the neighbourhood are much the same. The relative proportions of the town and rural population do not appear to lead to any corresponding distinction; as, in several counties where the relations are in this respect identically the same, the positions in regard to illegitimacy greatly differ.

In six counties the town population exceeds that of the rural; and five of those are in the lower half of the scale of illegitimacy, and these counties, except the one where the illegitimacy is in the higher half of the scale, contain a large number of great towns. It appears that several of the counties which are high in illegitimacy contain a considerable number of small towns, but on the other hand small towns abound in many of the counties where the illegitimacy is low.

Those counties where the inhabitants are most crowded in their dwellings do not exhibit the highest rate of illegitimacy. Durham, Devonshire, Lancashire, Monmouthshire, Kent, and Surrey, in which the houses are most filled, are low in the scale; while in Norfolk, Herefordshire, Westmoreland, and the North Riding where the illegitimacy is high, the houses are but scantily occupied; at the same time it must be admitted that some of the closely packed counties, such as Suffolk and Salop, are in the upper branch of the scale.

It is, however, to be remarked that, the highest rate of illegitimacy is to be found chiefly in those counties where the population is most spare. Thus again, Cumberland, Hereford, Norfolk, Shropshire, Westmoreland, and the North Riding of Yorkshire, which stand highest in the illegitimacy columns, stand lowest in the column for the density of the population. On the other hand, Lancashire, Middlesex, including the Metropolis, Staffordshire, Warwickshire, and the West Riding of Yorkshire, stand among the lowest in respect of illegitimacy though the population is the densest there.

What is the proper explanation of these discrepancies? Do they depend upon any variation in the morality, or in the extent of education, or in the prudential habits of the different counties? The Registrar-General in his twenty-first and twenty-second Annual Reports gives a table of the proportions and number of marriages in the several counties of England during the years 1858 and 1859, of persons who signed their names, and of persons who married not being of full age.

It may be considered that, with reference to this particular subject, the number of marriages affords a test of morality, the signatures to the marriage register give some fair indication of the progress of education, and the age of marriages testifies to the prudence of the parties, if, as is generally admitted, very early

marriages are not prudent. It will not be necessary to give the tables for both years, that for 1859 will suffice.

Counties.	Mar- riages to 100 Inhab- itants.	Signatures in Writing of 100 Married.		Persons not of Full Age of 100 Married.		Proportion of Scholars in Public Week-day Schools to the Population in 1858.	Illegitimate Children to every 100 Births in 1859.
		Males.	Fe- males.	Males.	Fe- males.		
Bedford	•717	59.9	50.2	12.69	25.19	11.7	8.0
Berks	•669	66.7	71.8	5.32	15.34	9.2	7.4
Buckingham	•639	62.7	61.1	11.00	24.68	10.1	6.9
Cambridge	•620	62.8	62.3	10.16	25.82	13.2	7.4
Chester	•812	71.4	53.4	5.48	16.53	12.7	7.6
Cornwall	•686	66.4	56.3	8.61	20.90	16.2	5.8
Cumberland	•707	78.8	65.9	5.46	16.77	11.2	11.4
Derby	•817	76.2	64.8	7.73	20.54	11.0	7.7
Devon	•783	76.0	70.0	4.75	14.48	12.5	6.2
Dorset	•740	69.1	71.1	6.96	17.05	9.1	6.2
Durham	•912	73.2	57.0	7.49	27.76	14.0	5.6
Essex	•639	63.1	68.4	6.57	21.29	8.7	5.4
Gloucester	•896	74.2	71.2	6.42	15.96	9.6	5.2
Hereford	•686	60.1	68.6	4.53	13.44	11.2	8.1
Hertford	•541	56.4	62.5	8.56	23.56	9.2	7.1
Huntingdon.....	•629	66.6	63.3	7.11	27.73	9.9	6.2
Kent	•722	75.4	74.1	3.89	20.04	9.8	6.1
Lancaster.....	1.035	70.5	45.0	7.57	20.64	13.3	6.6
Leicester	•758	72.8	64.0	9.04	19.55	11.9	8.0
Lincoln	•650	75.9	71.8	4.40	20.24	10.5	7.8
Middlesex	•552	78.1	79.2	4.44	14.80	13.0	4.7
Monmouth	•856	53.6	45.2	5.38	18.90	11.3	4.7
Norfolk	•700	64.4	65.2	7.43	18.96	11.3	10.7
Northampton	•815	71.2	63.8	11.28	26.09	9.7	5.7
Northumberland	•870	81.9	69.4	3.91	15.19	15.0	7.7
Nottingham.....	•935	71.3	57.7	8.77	21.63	13.4	8.9
Oxford	•630	69.5	72.7	5.33	18.74	8.3	7.2
Rutland	•616	74.3	77.6	6.67	12.73	8.6	6.7
Salop	•700	61.4	57.1	4.69	14.50	11.5	9.8
Somerset	•694	68.8	67.1	6.84	15.81	10.5	6.3
Southampton	•842	77.0	77.0	3.70	17.69	10.9	5.7
Stafford	•955	58.3	46.8	10.20	29.14	11.7	5.9
Suffolk.....	•670	50.3	64.4	6.71	19.80	10.5	8.2
Surrey	•721	74.4	81.2	2.80	14.74	12.0	5.0
Sussex	•685	75.7	80.1	4.19	18.14	11.0	6.8
Warwick	•897	72.1	62.8	7.19	20.92	14.8	5.4
Westmoreland.....	•644	86.7	76.9	3.16	12.38	7.9	9.7
Wilts	•635	66.3	69.2	7.63	17.49	7.8	7.1
Worcester	•876	68.9	61.4	7.83	22.89	13.2	6.4
York, East Riding	•951	81.9	70.1	5.65	21.88	} 12.3 Not separately given.	8.0
„ North „	•962	82.1	71.2	3.86	17.26		8.9
„ West „	•910	73.7	52.1	7.74	24.69		6.9
South Wales	•869	60.8	40.5	5.75	15.78		6.4
North „ „	•662	61.3	44.4	4.58	12.00		8.1
Metropolis	•963	89.4	80.9	3.05	13.01		4.2
Avg. for England....	•849	73.3	62.4	6.20	19.10	1 in 11.82	6.5

The above column for the numbers of scholars attending public schools is taken from the "Report of the Committee on the State of Popular Education in England," vol. i, part vi, p. 595, and the column as to the relative illegitimacy for 1859 already printed in p. 231, is here repeated.

It appears that the Metropolis exhibits this remarkable result. It is second only as regards the number of the marriages, it is highest as regards the state of education, it is very high with reference to the prudence of its inhabitants, but it is lowest in the scale of illegitimacy.

A like result is not, however, obtained from the table in other cases.

In Cumberland, Westmoreland, Hereford, the East and North Riding of Yorkshire, the illegitimacy is very high, and so is the standard of education, and the prudence in marrying. But in Monmouthshire, Cornwall, Lancashire, Staffordshire, the education is low, the illegitimacy is also low, but there is a high proportion of early marriages. In Norfolk, however, the state of education as regards the men is far below the average though as regards the women it is above it. There the number of men who marry under age is rather above the average, but that of the women is below it. This county has long been distinguished for the high rate of illegitimacy.

Notwithstanding these remarks it is to be doubted, whether any general result can be obtained beyond this, that the want of education is not accompanied with a large comparative amount of illegitimacy. It will be seen hereafter that in the whole kingdom of Scotland, where probably the people are the most educated of any nation in the world, the general rate of illegitimacy far exceeds that of England.

The Registrar-General in his "Fourteenth Annual Report," p. 12, having pointed out the differences of the rate of illegitimacy in different counties observes, "these returns undoubtedly imply varieties in the state of the family relations, in the social education of children, and in the morals of the people. But it must not be immediately assumed, as has been sometimes done, in comparing the counties of England and Wales, any more than in comparing the results of our returns with those of other countries, that the relative morality of the population is expressed by these numbers."

Then having pointed out the child-bearing ages of women as being between 15 and 55, and principally between 20 and 40, he shows in a table the numbers of women *married* and *unmarried* in each county at the two divisions of ages as ascertained at the Census of 1841, and the births of children in each class and the proportional number of children to women.

The following extract from that table is given :—

Registration Divisions.	Proportion of Births, in Wedlock, to 100 Married Women.		Proportion of Births, out of Wedlock, to 100 Unmarried Women and Widows.	
	Under the Age of 40.	Under the Age of 55.	Of the Age of 28—40.	Of the Age of 15—55.
England.....	35·197	22·470	3·365	1·715
London	30·657	20·420	1·500	·821
South-Eastern counties	35·023	21·920	3·064	1·860
South Midland „	35·701	22·400	3·946	1·944
Eastern „	34·572	21·463	4·943	2·462
South-Western „	36·677	22·020	2·735	1·396
West Midland counties	35·531	22·597	3·707	1·855
North „	35·978	22·298	4·494	2·213
North-West „	36·123	23·903	3·757	1·936
Yorkshire	36·608	23·742	4·101	2·018
Northern counties.....	37·781	24·510	4·254	2·086
Monmouthshire and Wales	36·143	22·344	3·517	1·791

Upon this table the Registrar-General, remarks:—

“ Excluding London from view as the returns are probably imperfect, it may be inferred that generally the unmarried women in the counties south of the Thames, comprising the descendants of the old Saxon population have few illegitimate children; Wales stands next in the scale.* The West Midland, the North-Western and the South Midland counties, covering the area of the ancient Mercia, present less favourable results; while in Yorkshire, the Northern counties, the North Midland counties and particularly the Eastern counties covering the area of the ancient Danish population, the number of illegitimate children is excessively great.” By Mercia it is presumed reference is made to the ancient Britons.

It thus appears that the Registrar-General is prepared to bring forward the subject of race, as having an important bearing in the solution of this problem. But without wholly denying its influence in some respects, and under certain circumstances, it appears difficult to estimate any influence therefrom, after the amalgamation of the races during ten or twelve centuries in this kingdom, upon the conduct of the population.

It may be allowed to make this observation, that though there are, no doubt, considerable bodies of people to be dealt with in England and Wales, yet the counties are so very varying in their extent, and so intermixed among themselves, without any natural

* In the division termed Wales is included the county of Monmouth, which having in itself a low rate of illegitimacy, naturally affects this table as applied to the principality of Wales.

boundaries or proper characteristic distinctions that they do not form good subjects for analytical statistics. And it is also to be remarked that the number of subjects to be examined in some of the counties are but few, which is an important circumstance to be always borne in view when deductions are proposed to be drawn in statistics.

The registration divisions also which diminish the number of the county distinctions are not in themselves uniform either in size or any other general characteristics.

Before concluding this part of the subject it may be thought convenient to distinguish among the different counties the criminal statistics, which have a bearing upon illegitimacy, and the sum of which was given on p. 225.

Counties.	Concealment of Birth, Total Crimes Committed.		Concealment of Birth, Persons Committed (or Bailed) for Trial.		
	1859.	1858.	1859.	1858.	1857.
	No.	No.	No.	No.	No.
Bedford	—	1	—	1	—
Berks	1	3	2	4	—
Bucks	3	2	1	4	2
Cambridge	—	1	—	1	—
Chester	—	4	—	4	—
Cornwall	5	3	5	2	1
Cumberland	2	1	2	1	1
Derby	5	3	5	3	—
Devon	4	8	6	4	—
Dorset	4	2	6	3	1
Durham	—	2	—	2	—
Essex	1	1	2	1	1
Gloucester (inclg. Bristol)	2	3	—	3	6
Hereford	2	1	1	1	2
Hertford	—	2	1	—	2
Huntingdon	—	1	—	2	—
Kent	2	3	2	—	2
Lancaster	9	13	9	7	6
Leicester	—	2	—	2	1
Lincoln	4	8	9	4	6
Middlesex (with London) .	16	19	5	6	6
Monmouth	—	1	—	—	1
Norfolk	5	6	3	1	4
Northampton	6	1	4	—	3
Northumberland	4	—	2	1	1
Nottingham	1	2	2	3	—
Oxford	5	4	5	4	1
Rutland	—	1	1	—	1
Salop	—	2	—	2	1
Somerset	7	5	5	3	3

Counties.	Concealment of Birth, Total Crimes Committed.		Concealment of Birth. Persons Committed (or Bailed) for Trial.		
	1859.	1858.	1859.	1858.	1857.
	No.	No.	No.	No.	No.
Southampton	3	—	1	5	3
Stafford	5	5	3	3	4
Suffolk	1	2	—	2	2
Surrey	3	—	4	2	8
Sussex	2	4	1	3	2
Warwick	4	11	2	5	1
Westmoreland	1	2	—	—	—
Wilts	4	3	2	1	1
Worcester	5	7	3	2	5
York	11	6	6	8	8
South Wales	8	3	3	2	—
North „	1	1	1	1	4

Disobeying Bastardy Orders and Prostitutes.—Details for each County.

Counties.	Disobeying Bastardy Orders.		Prostitutes. (Offences against Vagrancy Act.)	
	1859.	1858.	1859.	1858.
	No.	No.	No.	No.
Bedford	8	4	—	1
Berks	14	24	11	9
Bucks	21	17	1	—
Cambridge	13	29	16	6
Chester	144	167	178	124
Cornwall	157	57	63	90
Cumberland	119	97	10	33
Derby	156	126	17	16
Devon	47	36	153	165
Dorset	15	21	21	12
Durham	199	211	216	201
Essex	38	47	3	29
Gloucester (with Bristol)...	49	23	162	192
Hereford	70	24	27	20
Hertford	10	81	3	3
Huntingdon	8	6	1	1
Kent	34	53	50	69
Lancaster	1,053	1,184	806	902
Leicester	27	35	2	3
Lincoln	86	135	52	42
Middlesex (with London) .	229	285	3,465	6,050
Monmouth	26	38	69	90
Norfolk	58	54	16	23
Northampton	14	17	18	24
Northumberland	86	122	246	198

Disobeying Bastardy Orders and Prostitutes—Contd.

Counties.	Disobeying Bastardy Orders.		Prostitutes. (Offences against Vagrancy Act.)	
	1859.	1858.	1859.	1858.
	No.	No.	No.	No.
Nottingham	75	90	13	10
Oxford	17	25	43	53
Rutland	4	1	2	2
Salop	82	96	11	17
Somerset	58	88	61	34
Southampton	26	37	202	137
Stafford	266	194	186	192
Suffolk	43	40	29	10
Surrey	10	13	7	8
Sussex	31	24	3	7
Warwick	92	70	153	155
Westmoreland	43	37	9	10
Wilts	15	22	8	7
Worcester	31	51	43	48
York	710	896	711	713
WALES.				
Anglesea	19	7	—	2
Brecon	107	79	—	—
Cardigan	4	4	2	—
Caermarthen	115	116	—	10
Carnarvon	9	4	15	12
Denbigh	23	15	1	5
Flint	25	26	2	2
Glamorgan	131	132	185	189
Merioneth	19	12	—	—
Montgomery	43	34	13	15
Pembroke	29	33	—	—
Radnor	13	11	—	4

III.—*Of Illegitimacy in the different Towns of England and Wales.*

It is now proposed to refer to the different towns in England and the Registrar-General's report enables us to obtain results in respect of two years, namely for 1845 and 1857, thus embracing an interval of twelve years.

It is impossible to draw any general result from this table. The principal towns in the counties which are distinguished by their high rate of illegitimacy, exhibit a like character in these tables. Norwich, and Yarmouth in Norfolk, Shrewsbury in Shropshire, Hereford in Herefordshire, Nottingham in Nottinghamshire, are all marked by such high rate. It will be observed, however, that in Birmingham, Bristol, Dudley, Liverpool, Sheffield, and the Metropolis, where the population is very dense, the rate is low,

Such is the case also in the seaports, namely, Portsmouth, Plymouth, Southampton, Liverpool, Hull, Sunderland, and Swansea.

The seats of the two Universities stand in a very fair position, and so also do the two fashionable watering places of Bath, and Cheltenham; though Brighton and Scarborough, which last town besides being a seaport is a very gay place, are unfavourably distinguished.

The manufacturing towns in Cheshire, Lancashire, and the West Riding of Yorkshire, also for the most part exhibit an unfavourable appearance, notwithstanding the density of their population.

	Illegitimate Births.		Total Registered Births.		Proportion of Illegitimates to 100 Born.			
	1845.	1857.	1845.	1857.	1845.	1857.	In-crease.	De-crease.
Aberystwith.....	49	36	759	733	6·5	4·9		—
Ashton.....	605	346	7,294	4,608	8·3	7·5		—
Bath.....	129	93	1,895	1,639	6·8	5·7		—
Bedford.....	72	79	1,160	1,248	6·2	6·3	—	
Berwick-on-Tweed...	50	47	782	703	6·4	6·7	—	
Birmingham.....	253	378	5,646	8,020	4·5	4·7	—	
Bolton.....	546	443	4,560	5,100	12·0	8·7		—
Brighton.....	78	153	1,434	2,234	5·4	6·8	—	
Bristol.....	110	105	2,157	2,133	5·1	4·9		—
Bury.....	297	240	3,315	3,368	9·0	7·1		—
Cambridge.....	72	50	848	750	8·5	6·6		—
Carlisle.....	127	145	1,244	1,482	10·2	9·8		—
Caermarthen.....	121	118	1,194	1,164	10·1	10·1		
Cheltenham.....	71	68	1,239	1,200	5·7	5·7		
Cockermouth.....	95	131	1,153	1,371	8·2	9·6	—	
Coventry.....	100	115	1,191	1,611	8·4	7·1		—
Derby.....	101	131	1,309	1,772	7·7	7·4		—
Dudley.....	220	303	4,031	5,887	5·5	5·1		—
Durham.....	108	148	1,766	2,810	6·1	5·3		—
Exeter.....	42	52	801	801	5·2	6·5	—	
Falmouth.....	43	37	636	640	6·8	5·8		—
Gloucester.....	60	80	911	1,097	6·6	7·3	—	
Halifax.....	361	352	4,064	4,466	8·9	7·9		—
Hereford.....	88	99	958	1,049	9·2	9·4	—	
Huddersfield.....	388	392	4,355	4,827	8·9	8·1		—
Hull.....	75	112	1,435	1,910	5·2	5·9	—	
Ipswich.....	70	81	848	1,269	8·3	6·4		—
Lancaster.....	71	90	1,057	1,211	6·7	7·4	—	
Leeds.....	407	525	6,653	8,208	6·1	6·4	—	
Leicester.....	179	210	2,196	2,442	8·2	8·6	—	
Lincoln.....	62	121	1,206	1,569	5·1	7·7	—	
Liverpool.....	402	456	10,103	9,367	4·0	4·9	—	
Macclesfield.....	225	202	1,992	1,993	11·3	10·1		—
Manchester.....	500	610	7,860	9,076	6·4	6·7	—	
Merthyr Tydvil.....	125	215	2,429	4,603	5·1	4·7		—

	Illegitimate Births.		Total Registered Births.		Proportion to 100 Born.			
	1845.	1857.	1845.	1857.	1845.	1857.	In-crease.	De-crease.
Newcastle-on-Tyne...	169	263	2,411	3,652	7.0	7.2	—	—
Norwich	211	260	1,733	2,474	12.2	10.5	—	—
Northampton	60	61	1,155	1,507	5.2	4.0	—	—
Nottingham	181	279	1,767	2,603	10.2	10.7	—	—
Oxford	31	37	597	633	5.2	5.8	—	—
Portsmouth	106	129	2,469	3,769	4.3	3.4	—	—
Plymouth	53	107	1,335	1,922	4.0	5.6	—	—
Preston	331	371	3,171	3,967	10.4	9.4	—	—
Salisbury	21	20	293	302	7.2	6.6	—	—
Scarborough	65	73	782	919	8.3	7.9	—	—
Shrewsbury	49	66	578	723	8.5	9.1	—	—
Sheffield	164	297	3,510	5,109	4.7	5.8	—	—
Southampton	41	74	854	1,614	4.8	4.6	—	—
Stafford	37	38	603	711	6.1	5.3	—	—
Stockport	287	246	3,218	3,320	8.9	7.4	—	—
Sunderland	114	140	2,047	3,602	5.6	3.9	—	—
Swansea	35	77	1,164	1,852	3.0	4.2	—	—
Warwick	66	78	1,067	1,222	6.2	6.4	—	—
Windsor	29	33	533	560	5.4	5.9	—	—
Wolverhampton	194	297	3,206	5,329	6.1	5.6	—	—
Worcester	55	65	662	863	8.3	7.5	—	—
Yarmouth	92	75	800	933	11.5	8.0	—	—
York	111	159	1,507	1,841	7.4	8.6	—	—
Metropolis	2,423	3,748	65,884	89,577	3.7	4.2	—	—

It appears that the proportion of illegitimate births increased in 25 towns, and in the Metropolis, but it decreased in 31, and in 2 towns it remained the same.

The towns in which the rate was highest in 1857 were Norwich, Nottingham, Macclesfield, and Caermarthen, while it was lowest in Portsmouth, Sunderland, Swansea, Merthyr Tidvil, and the Metropolis.

IV.—Of the Influence of the Seasons of the Year.

The Registrar-General has supplied the means from which the following table may be framed of the births in the different quarters of the year. The numbers are of the births registered :—

Year.	Total.	Quarter ending March.	Quarter ending June.	Quarter ending September.	Quarter ending December.
1857..... {	*663,071	170,430	170,444	161,181	161,016
	43,002	11,256	10,583	10,428	10,735
1858..... {	655,481	170,959	169,115	157,445	157,962
	43,305	11,657	11,004	10,496	10,148
1859..... {	689,881	175,532	175,864	168,394	170,091
	44,751	11,584	11,061	10,883	11,223

* The first line shows the number of births of both kinds, the second line that of the illegitimate.

The only result to be obtained from this table is the fact that the greatest number of illegitimate births occur in the first quarter of the year, and the least number, in the third quarter. But the rule is much the same as regards the whole number of births, so that it cannot be alleged that there is anything in the different seasons which affects the relative proportions between legitimate and illegitimate births.

Some variation, however, occurs in regard to the different portions of England in this respect, and the following table shows these variations for the year 1859:—

Divisions.	Total.	March.	June.	September.	December.
London {	†89,577	23,434	22,144	21,648	22,351
	3,748	1,029	886	882	951
South-Eastern..... {	55,753	14,451	13,925	13,663	13,714
	3,294	885	811	743	855
South Midland {	42,325	10,869	10,913	10,281	10,262
	2,799	731	725	635	708
Eastern {	36,702	9,647	9,622	8,714	8,719
	3,001	789	803	651	758
South-Western {	55,867	14,455	14,415	13,398	13,599
	3,365	935	849	749	832
West Midland {	82,552	21,448	20,925	19,867	20,312
	5,316	1,400	1,282	1,309	1,325
North Midland {	43,536	11,212	11,219	10,442	10,663
	3,529	965	808	859	897
North-Western {	102,472	26,115	26,923	25,100	24,334
	7,227	1,832	1,806	1,834	1,751
York {	70,859	17,986	18,478	17,178	17,217
	5,154	1,285	1,266	1,347	1,256
Northern {	40,397	10,170	10,517	10,034	9,676
	2,726	673	644	701	708
Welsh {	43,031	10,643	11,363	10,856	10,169
	2,843	732	703	714	694

† The first line gives the total number of births, the second line that of the illegitimate only.

In all the divisions except that of York, and the Eastern, Northern, and North-Western divisions, the excess in the number of the births occurred in the March quarter, but in several of the divisions the minimum numbers do not appear in the September quarter.

V.—*Of the difference between the Sexes in Illegitimate Births.*

It is, perhaps, desirable to note the proportion which prevails between the sexes of these children. In the "Sixth Annual Report," the Registrar-General remarks that "the number of boys born is in all countries greater than the number of girls; and it has been generally observed that the excess of males is greatest among legitimate children; but in England the difference appears at present to be inconsiderable, or not more than 18 in 10,000. In the lowest terms that express these relations there were 20 boys to 19 girls *legitimate*, and 21 boys to 20 girls among *illegitimate* children born alive." This refers to the year 1842. There is no separate returns of the sexes of the illegitimate children for 1843 and 1844.

But in the "Eighth Annual Report," p. 38, there is a table in a note which shows as follows for all England:—

In respect of <i>all</i> children born during seven years, 1839-45,	
the ratio of <i>males</i> to <i>females</i> was	10·515 : 1
In respect of legitimate children born in two years, 1842-45,	
the ratio was	10·510 : 1
Of illegitimate children	10·393 : 1

And in the text it is stated that the proportions are in legitimate children nearly 20 boys to 19 girls, in illegitimate children 26 boys to 25 girls.

Again, in the "Thirteenth Annual Report" for 1850, p. 13, the subject is resumed. It is there stated that in that year 104 boys were born in England to every 100 girls, or 26 boys to 25 girls. The Registrar-General remarks, "If the children are distributed into *two* classes it is found that the boys born *in* wedlock are to those born *out* of wedlock as 13·78 to 1; while the girls of the corresponding classes are as 13·66 to 1. The reason of the discrepancy is this,—the excess of boys born *out* of wedlock over girls, 103·38 to 100, is not so great as the excess of boys among the children born in wedlock (104·28 to 100)."

In the "Fourteenth Report" for 1851, p. 9, it is recorded that to every 1,000 girls 1,047 boys were born, but to every 1,000 girls born out of wedlock only 1,039 boys were born.

The Registrar-General here states: "The sex of the child is supposed to be influenced, to a considerable extent, by the relative

"ages of the parents,* but the truth of this cannot be tested by the
"English returns."

In the table appended to this part of the Report the exact ratios are shown for the whole of the kingdom to be as follows:—

Males born <i>in</i> wedlock to every 100 females so born	104.7
„ <i>out of</i> „ „	103.9

As, however, the examination is carried out through the different counties, the proportions are found to vary considerably, and in twelve counties the proportions in respect of illegitimate children were reversed, there being more females than males born in this class.

In the "Sixteenth Report," p. 12, it is remarked that in the year 1853 the excess of boys among children born out of wedlock was 4·6 in 100, since to 100 girls 104·6 boys were born. This is above the proportion in the previous years ; but it appears that there was a general increase, as the ratio of all the boys born in that year to all the girls was nearly 105 to 100, or 21 boys to 20 girls.

Subsequent Reports show the following figures:—

Years.	Legitimate.		Illegitimate.	
	Boys.	Girls.	Boys.	Girls.
1854	104·4	100	106·1	100
'57	105·2	100	104·1	100
'58	104·4	100	106·2	100
'59	104·5	100	105·7	100

The twelve counties in which the proportions were reversed in the year 1851 were:—

*Surrey.	*Norfolk.	Lancashire
*Berks.	Wilts.	Yorkshire, East Riding
Bucks.	*Rutland.	„ West „
Cambridge.	*Notts.	*Westmoreland.

In 1857 an excess of females over males occurred in fifteen counties, namely in—

*Surrey.	Northamptonshire.	Warwickshire.
Hants.	Bedfordshire.	*Rutlandshire.
*Berks.	*Norfolk.	*Notts.
Middlesex.	Cornwall.	Derbyshire.
Herts.	Hereford.	*Westmoreland.

* This remark is repeated in the "Sixteenth Annual Report," p. 10.

Of these counties eight appear in the former list.

M. Quetelet "*Recherches sur la Population*," in 1827, pointed out that the relation of male to female births in France was 1,000 to 938, and in the Netherlands 1,000 to 945; and M. Edouart Smits, in the same year, "*Statistique Nationale*," p. 21, showed that the average for ten years in the Netherlands was 1 male to 9427 females, while he observes that in different parts of Europe it was almost everywhere as 1 male to 9545 females.

No distinction is here made between legitimate and illegitimate births.

M. Legoyt reports of the year 1857, in the "*Annuaire de l'Economie Politique, &c.*," that the number of children born in France was 105·39 males to 100 females legitimate, but only 103·24 males to 100 females illegitimate. He shows that a similar result existed in previous years, and observes that this singular fact, which must be considered as one of the laws attending the progress of population in all countries, remains still inexplicable.

But in England it will be seen that, though in some years this rule prevailed, in later years the proportions between the sexes have been greater in favour of the males among the illegitimate than among the legitimate births; and in Belgium, as shown above,* in 1858, the total number of female illegitimate children born alive exceeded those of the male by 3.

This subject is discussed by the Registrar-General of Scotland in his "*Second Annual Report*," where he deals with the Statistics for 1856. He observes, "that in Scotland, while the legitimate births yielded 105·2 males to every 100 females, the illegitimate yielded 106·1 males to every 100 females; or the proportion of males to females was higher than among the legitimate births. This was strikingly the case with regard to the insular districts. There, while the legitimate births yielded 107·7 males to 100 females, the illegitimate births were in the proportion of 114·2 males to 100 females." In the midland and rural districts the proportion was 104·9 legitimate and 105 illegitimate males to 100 females; in the town districts it was 105·4 and 107·5 illegitimate males to 100 females.

It is also noticed in the Prussian statistical tables abstracted by Sir F. Goldsmid, already referred to, and published in vol. xxiii of the *Journal*, at p. 203. There an hypothesis is started by the editor of the tables, that the fruit of a first pregnancy is oftener female than male, and if this be a statistical fact it would explain the smaller preponderance of males among illegitimate children, most of whom are the fruits of first pregnancies. The editor of the tables remarks, however, that the smaller preponderance of males among the illegiti-

* See p. 224.

mate children has no constant proportion. This is also shown by the previous observations.

The statistical fact is not yet established, though it seems to be one quite capable of proof; and taking all the information together, it is impossible at present to lay down any general rule as regulating the proportion between the sexes in illegitimate births as varying from that which generally prevails in legitimate births.*

VI.—Of Pauper Illegitimacy.

The previous remarks have applied to the general illegitimacy of children born in this country every year; it is now proposed to examine the amount of that illegitimacy which exists amidst the lowest classes of society, being that which falls for relief upon the poor rate. This difficulty occurs in reference to any general comparison between the general and the pauper illegitimacy. The Registrar-General's Reports give the number of children born in the course of every year, but the Poor Law Board's Reports can only show who are relieved on a particular day in the year; so that, though the latter show how many illegitimate children were relieved on the 1st of July in any given year, they cannot show whether such children were born in that year, or in any antecedent year within fifteen. On the other hand, illegitimate children born in the same year, though destitute and chargeable before or after the 1st July, but not so on that particular day, will not appear in these reports. Nevertheless, if a series of years be taken and compared together in the two reports average results may be fairly eliminated.

Comparing the table on p. 221, which shows that the general illegitimacy is about 6·5 per cent. upon the population, with the table printed hereunder, which gives the pauper illegitimacy at about 1·6 upon the population, it follows that the amount of illegitimacy in all classes of society above the very lowest is about 4·9 per cent.

It will be remembered that great alterations in the law regarding pauper bastardy took place in the years 1834 and 1844. In 1834, by the 4th and 5th Wm. IV., cap. 76, the power of proceeding against the putative father of a bastard child prior to its birth and chargeability was abolished, and the guardians of the union or parish in which the child, when born, became chargeable, were authorized to obtain an order at the quarter sessions upon the putative father for reimbursement of the expenses of its relief, though such order was not to be obtained upon the uncorroborated testimony of the

* Nevertheless, the physiological facts referred to in the note on p. 225, offers some explanation of the facts stated by M. Legoyt. If there be more male still-born among the children of *primiparæ*, and the illegitimate children abound most in first pregnancies, it is easy to infer a preponderance of female illegitimate children over the ordinary proportion between the sexes at birth.

mother, who was also relieved from all penal consequences in regard to her conduct. A less costly and more frequent tribunal, namely, the petty sessions, was substituted by the Statute 2nd and 3rd Vict., cap. 85. But in 1844 an entirely new plan was introduced. The guardians and the parish officers were deprived of all power of interference, and to the mother alone was given the right of obtaining for herself an order of justices to compel the putative father to pay a weekly contribution towards the maintenance of her child, whether she was relieved from the poor rates or not.

The consequences which resulted from the alteration of the law by the Poor Law Amendment Act of 1834, is shown by a table set out in the "Third Report of the Poor Law Commissioners," Appendix, p. 323, which exhibits the difference between the number of bastards chargeable at the time when the new law was introduced, and that which existed after the expiration of two years. The table contains the returns in the order of the counties, and points out the positions of those counties with reference to the bastardy, the population, and the pressure of the poor rate in them respectively.

It will appear in a subsequent part of this paper, but it is here to be stated generally, that the total number for England and Wales of bastards chargeable in the year ending 25th March, 1835, was 71,298, while in the year ending 25th March, 1837, that is two years afterwards, the total number was 45,135. The reduction was 37 per cent. This is, doubtless, to be attributed greatly to the general improvement which then took place in the management of the relief to the poor. Of course, the bastards chargeable in 1837 were not all new-born children, inasmuch as many of those chargeable in 1835 continued to be so for some years afterwards.

The progress of pauper illegitimacy was not so distinctly shown from 1837 to 1846 as could be desired. The Annual Reports of the Poor Law Commissioners give returns of the paupers chargeable during the quarter of the year ending 25th March, from which the following table is framed, referring, however, to the out-door poor only:—

Number of Unions.	Years.	Number of Illegitimate Children.	Number of the Mothers.
531	1839	6,291	5,148
—	'40	6,751	5,376
578	'41	5,900	4,886
584	'42	6,486	4,941
585	'43	7,210	5,361
—	'44	7,907	5,908
—	'45	6,741	5,028
—	'46	6,660	4,974

These reports do not supply any information as to the number of these classes of paupers maintained in the workhouses of the unions. But a Parliamentary Paper of the House of Commons, No. 115, of the year 1841, shows the number of female inmates and children in 535 unions in the year 1840, from which it appears that the number of legitimate children was 36,895, of illegitimate 12,861; and the number of mothers of bastards was 5,156, and of other women 14,011. If these numbers be added to the out-door paupers above enumerated for 1840, the number of illegitimate children will be 19,612, that of the mothers will be 10,532. It must be noticed that the number of unions is not exactly even, there being four unions more in the list of in-door paupers above that of the out-door, so that probably the number of children may be stated as about 20,000, and that of their mothers at 11,000.

The population of the 535 unions is given in the Parliamentary Paper as 10,709,155; and since the population in 1841 was very nearly 16,000,000, it is obvious that this computation as to the number of illegitimate paupers was very much below the full amount for the whole of England and Wales.

The numbers are here given for a quarter of a year, and therefore it will not be correct to compare these numbers with those of 1835 and 1837 above-stated, without making allowance for the difference in the period of the calculation. It will be seen, however, by the table itself, that there was a diminution in the numbers from the year 1839 to 1846, since the 531 unions of the former year show 5,148 mothers against 4,974 in the 585 unions of the latter year; and in the former there were 6,291 bastards to 6,660 in the latter, where there was, indeed, an excess, but not in proportion to the excess in the number of unions and the increase of the population during seven years.

It will be remembered, that though the alteration in the system of the bastardy laws above referred to was made by the legislature in 1844, it did not come into effect until the subsequent year.

Although, as noticed, there is no information as to the year 1847, a complete account has been supplied of the progress, or it may be rather said the decline, of pauper bastardy by the returns of the Poor Law Board in their annual reports from 1849 to 1860, which enable us to obtain this table. See "Eleventh Annual Report, "Poor Law Board," pp. 196, 198.

Years.	Number of Unions.	Estimated Population comprised therein in Millions.	Total Paupers Relieved.	Illegitimate Children.			Total Illegitimate Children.	Percentage on Population.	Percentage on Number of Paupers.	Mothers of Illegitimate Children Relieved out of the Work-house.
				Of Non-abled Work-house Inmates.	Of Able-bodied Work-house Inmates.	Out-door Paupers.				
Jan., 1849	587	14,760,	934,128	1,116	8,159	7,753	17,028	·12	1·8	5,247
July, „	587	14,850,	836,300	937	6,805	6,897	14,639	·10	1·8	4,421
Jan., 1850	590	14,947,	882,711	965	7,877	7,055	15,897	·11	1·8	4,508
July, „	593	15,195,	798,290	913	6,354	6,152	13,419	·09	1·7	3,920
Jan., 1851	595	15,382,	831,430	1,087	7,470	5,862	14,419	·09	1·7	3,703
July, „	597	15,474,	785,759	950	6,333	5,536	12,819	·08	1·6	3,518
Jan., 1852	597	15,567,	803,875	981	7,349	5,478	13,808	·09	1·7	3,453
July, „	597	15,668,	766,757	960	6,355	4,994	12,309	·08	1·6	3,133
Jan., 1853	598	15,790,	768,516	989	7,251	4,501	12,741	·08	1·7	2,894
July, „	611	16,325,	733,518	989	5,856	4,274	11,119	·07	1·5	2,640
Jan., 1854	614	16,526,	807,735	1,122	7,929	4,410	13,461	·08	1·7	2,811
July, „	619	16,901,	790,107	1,021	7,207	4,477	12,705	·08	1·6	2,912
Jan., 1855	620	17,019,	841,636	1,100	8,435	4,993	14,528	·09	1·7	3,069
July, „	623	17,245,	812,070	1,047	7,123	4,910	13,080	·08	1·6	3,097
Jan., 1856	624	17,455,	877,767	1,136	8,927	5,310	15,373	·09	1·8	3,281
July, „	624	17,560,	796,582	1,034	6,715	4,576	12,325	·07	1·5	2,890
Jan., 1857	624	17,665,	843,806	1,169	8,596	4,632	14,397	·08	1·7	2,860
July, „	628	17,930,	790,059	920	6,383	4,458	11,761	·07	1·5	2,748
Jan., 1858	629	18,075,	908,186	1,082	8,263	5,072	14,417	·08	1·6	3,124
July, „	629	18,225,	794,190	931	6,229	4,288	11,448	·06	1·4	2,571
Jan. 1859*	629	18,375,	831,684	1,050	7,306	3,997	12,353	·07	1·5	2,478

* Since this paper was read, I have obtained this return for 1st January, 1861. Number of unions the same; total paupers, 851,689; illegitimate children, in-door, 9,143; out-door, 3,487; total, 12,630. Mothers, out-door, 2,221. Percentage of illegitimate, on number of paupers, 1·48.—W. G. L.

It is, doubtless, known that the Poor Law Commissioners established in 1847 a mode of determining the correct pauper census in every year by causing all those in receipt of relief to be numbered on two fixed days in every year. This system was established in a certain number of unions and parishes in that year, and has been since extended to others. Hence, in the above table, the returns in the first instance apply to 587 unions, comprising a population of nearly 15 millions, while the last returns apply to 629 unions, including the estimated population of $18\frac{1}{2}$ millions; the total estimated population of England and Wales for the year 1858 being $19\frac{1}{2}$ millions.

The system came into operation during 1848, and therefore the first return is given for 1st January, 1849. The days selected for the census are the 1st January and the 1st July; and it will be seen that the numbers are always less in July than in January, but this is in accordance with the general rule as to the pressure of pauperism.

Though there is some fluctuation in the numbers during the period of ten years described in that table, which coincides with the fluctuation of the general pauperism of the country, there is, nevertheless, a steady decline from $\cdot 12$ to $\cdot 07$ per cent. on the population, and from 1.8 to 1.5 on the total number of the paupers relieved in the parts of the country to which this table applies.

It will be observed that the children are classed as in-door and out-door, and the former are divided into the children of non-able-bodied adults and of able-bodied adults. The reduction in the numbers of in-door illegitimate children is not very great, because that number is generally determined by the capacity of the workhouses. In a large part of the kingdom the unmarried mothers of illegitimate children can only be relieved in the workhouse. Consequently, in the unions where that regulation prevails those women and their offspring are congregated principally in the workhouse. Nevertheless, even as regards this class, there is a very considerable reduction, namely, from 9,275 in 1849, to 8,356 in 1859,—a reduction of nearly 1,000. But as regards the out-door poor of this class the reduction is very much larger. The number of illegitimate out-door children relieved with their mothers has fallen from 7,753 in 1849, to 3,997 in 1859,—a reduction to the extent of 3,756 children; while the mothers of such children relieved out of the workhouse in 1849 was 5,247, but in 1859 only 2,478,—much less than one-half.

It is to be remembered also that this comparison is made, not with the same number of unions, but with an increased number against the smaller, so that the actual reduction, if the complete comparison could have been made, would have been greater.

It is fair to consider that this great reduction is to be attributed to the general rules established since the passing of the Poor Law Amendment Act in the great part of country which, by restricting relief to the mothers of illegitimate children to the workhouse, operates to check their submission to the illicit intercourse which now brings not a shame nor a penalty in the shape of a punishment, but most irksome restrictions if they seek relief from the poor rate. While the ready mode of obtaining a contribution from the father of the child for its maintenance now established, not only keeps the mother and child from the pauper-roll, but tends to control the indulgence in the fathers of passions which

lead to these consequences. It will not fail to be noticed, that though the pauper bastardy has largely decreased, the proportion of the general bastardy has not increased.

It is here, perhaps, not uninteresting to examine the state of pauper bastardy in the different counties, as the general bastardy therein has been already shown. From the Reports of the Poor Law Commissioners are obtained the number of affiliations immediately before and shortly after the Poor Law Amendment Act, and the number of orders in bastardy made under the statute of 1844 during the year 1857, are obtained from the Parliamentary Paper, No. 55, of 1861.

The following are the results :—

Counties.	Number of Bastards Affiliated in the Year ended March 25, 1835.	Number of Bastards Affiliated in the Year ended March 25, 1837.	Number of Orders in Bastardy, made in the Year 1857.	Population in 1841.
Bedford	83	24	78	107,936
Berks	89	4	56	164,147
Buckingham	96	35	77	155,983
Cambridge	230	122	62	164,459
Chester	329	169	334	395,660
Cornwall	365	226	43	341,279
Cumberland	113	54	222	178,038
Derby	204	78	168	272,217
Devon	453	156	85	533,460
Dorset	311	126	39	175,043
Durham	163	164	326	324,284
Essex	198	106	105	344,979
Gloucester	337	77	92	431,383
Hereford	235	128	43	113,878
Hertford	45	21	20	157,207
Huntingdon	66	13	26	58,549
Kent	216	41	137	548,337
Lancaster	1,206	151	1,040	1,677,054
Leicester	136	103	65	215,867
Lincoln	451	286	299	362,602
Middlesex	318	85	344	1,576,636
Monmouth	60	45	83	134,335
Norfolk	537	191	190	412,664
Northampton	325	118	64	199,228
Northumberland	164	54	192	250,278
Nottingham	168	42	190	249,910
Oxford	171	64	71	161,643
Rutland	26	14	7	21,302
Salop	345	106	71	239,048
Somerset	575	183	75	435,982
Southampton	135	48	84	355,004
Stafford	274	57	270	510,504
Suffolk	311	119	126	315,073
Surrey	263	23	154	582,678
Sussex	164	19	No return	299,753

Counties.	Number of Bastards Affiliated in the Year ended March 25, 1835.	Number of Bastards Affiliated in the Year ended March 25, 1837.	Number of Orders in Bastardy made in the Year 1857.	Population in 1841.
Warwick	305	68	84	401,715
Westmoreland	69	16	64	56,454
Wilts	356	45	71	258,733
Worcester	127	23	150	233,336
York, East Riding	233	98	146	233,257
York, North Riding	235	91	155	204,122
„ West „	757	269	1,089	264,734
Total of England	11,244	3,862	6,997	14,995,138*
Total of Wales	1,137	546	648	911,603
	12,381	4,408	7,645	15,906,741

* The population of the several counties in 1851 is shown in a table which is printed on the next page.

It appears, that though the orders in bastardy which, however, oftentimes prevent dependance on the poor rates, in general had thus largely increased over the orders of affiliation in 1837, they are still very far below the orders obtained in 1834, though the population has been greatly extended.

Some observations occur upon this table. The county of Hereford is remarked throughout this paper for its high rate of illegitimacy, yet the number of orders in bastardy in 1857 are very small. The same is the case with Salop, whereas Cumberland, Northumberland, Nottinghamshire, and Westmoreland, and the North Riding, where the illegitimacy has been shown to be high, there is a corresponding increase in the number of orders of bastardy. Norfolk and Suffolk are in this respect nearly stationary.

It is now proposed to distribute the pauper bastardy among the labouring classes by means of the tables of industrial statistics supplied by the Poor Law in their "Tenth Annual Report," Appendix.

In those tables are shown the registration divisions of the country, and the proportions of the different classes of the labouring population, as derived from the census of 1851, and by carrying out against those divisions the numbers of illegitimate paupers relieved in the different unions on the 1st July, 1858, the percentage in the several unions of this pauperism is obtained, together with the proportions of the several classes of the labouring poor.

This is the table:—

Registration Divisions and Union Counties.	Population, 1851.	INDUSTRIAL STATISTICS.				IN-DOOR POOR.	
		Ratio per Cent. of Persons Aged 20 Years and upwards, occupied in				Illegitimate Children under 16.	
		Mechanical Arts, Trade, and Domestic Service.	Agri- culture.	Manu- fac- tures.	Mining and Mineral Works.	Of Able- bodied Inmates.	Of not Able- bodied Inmates.
THE METROPOLIS.							
Middlesex (part)	974,277	47·9	1·0	7·8	3·5	246	90
Surrey „	482,435	45·6	1·6	6·0	3·4	168	42
Kent „	134,200	35·8	2·8	2·7	3·1	31	—
Total	1,590,912	46·3	1·3	6·8	3·4	445	132
SOUTH-EASTERN.							
Surrey (part)	194,278	32·5	20·5	2·6	2·4	103	12
Kent „	484,297	29·7	19·9	2·7	2·2	246	44
Sussex	248,690	26·1	28·8	2·0	3·0	200	13
Southampton	349,339	30·1	17·7	2·5	2·2	215	26
Berks	199,106	28·9	26·7	2·7	2·3	109	9
Total	1,475,710	29·5	21·8	2·5	2·4	873	104
SOUTH MIDLAND.							
Middlesex (part)	150,606	35·5	15·1	2·5	3·2	50	3
Hertford	173,953	26·6	25·9	8·4	2·3	99	7
Buckingham	143,492	23·6	26·6	15·3	2·0	76	6
Oxford	169,823	28·8	26·7	4·0	2·7	83	10
Northampton	210,489	31·4	24·3	7·5	2·3	102	21
Huntingdon	60,319	23·7	30·8	3·2	2·9	27	2
Bedford	129,668	27·3	26·9	15·7	2·0	38	6
Cambridge	191,800	25·4	29·7	1·6	2·3	75	1
Total	1,230,150	28·3	25·4	7·1	2·4	550	56
EASTERN.							
Essex	344,077	26·3	26·9	3·9	2·0	194	12
Suffolk	335,780	26·0	28·6	3·5	2·3	189	11
Norfolk	365,199	26·0	29·2	2·4	2·4	265	8
Total	1,045,056	26·1	28·3	3·3	2·3	648	31
SOUTH-WESTERN.							
Wilts	231,538	19·4	31·2	7·1	2·2	198	1
Dorset	177,057	28·1	25·1	4·6	3·4	124	21
Devon	570,446	31·0	22·2	4·8	3·0	288	46
Cornwall	355,392	23·5	20·2	1·7	15·5	171	34
Somerset	456,136	32·4	22·6	5·0	4·3	229	53
Total	1,790,569	28·5	23·4	4·6	5·6	1,010	155
WEST MIDLAND.							
Gloucester	419,492	35·7	15·5	6·0	3·6	195	35
Hereford	98,917	26·3	33·2	2·4	2·5	45	5
Salop	226,231	23·3	28·0	2·0	8·5	126	11
Stafford	629,329	23·5	11·1	2·9	23·1	165	32
Worcester	257,144	29·5	16·1	4·5	13·9	96	9
Warwick	442,267	32·5	11·3	9·7	11·5	116	10
Total	2,073,380	28·9	15·6	5·2	12·7	743	102

Population, 1851.	Out-door Poor, Illegitimate Children.	Total Number of Illegitimate Children.	Mothers of Out-door Illegitimate Children.	Percentage of Total Pauper Illegitimate Children to Population.	Registration Divisions and Union Counties.
974,277	349	685	165	·07	THE METROPOLIS.
482,435	175	384	71	·08	Middlesex (part)
134,200	103	134	64	·10	Surrey ,,
					Kent ,,
1,590,912	627	1,203	300	·08	Total
194,278	7	122	3	·06	SOUTH-EASTERN.
484,297	22	312	13	·07	Surrey (part)
248,690	17	230	18	·09	Kent ,,
349,339	138	379	77	·11	Sussex
199,106	9	127	8	·06	Southampton
					Berks
1,475,710	193	1,170	119	·08	Total
150,606	1	54	1	·04	SOUTH MIDLAND.
173,953	7	113	6	·06	Middlesex (part)
143,492	23	105	18	·07	Hertford
169,823	22	115	13	·07	Buckingham
210,489	17	140	15	·07	Oxford
60,319	3	32	2	·05	Northampton
129,668	6	50	6	·04	Huntingdon
191,800	33	129	19	·07	Bedford
					Cambridge
1,230,150	112	738	80	·06	Total
344,077	19	225	12	·07	EASTERN.
335,780	40	240	29	·07	Essex
365,199	131	404	85	·11	Suffolk
					Norfolk
1,045,056	190	869	126	·08	Total
231,538	47	246	32	·11	SOUTH-WESTERN.
177,057	17	162	12	·09	Wilts
570,446	155	489	128	·09	Dorset
355,392	19	224	12	·06	Devon
456,136	52	334	41	·07	Cornwall
					Somerset
1,790,569	290	1,455	225	·08	Total
419,492	72	302	35	·07	WEST MIDLAND.
98,917	14	64	5	·06	Gloucester
226,231	55	191	25	·08	Hereford
629,329	23	220	19	·03	Salop
257,144	27	132	14	·05	Stafford
442,267	19	145	12	·03	Worcester
					Warwick
2,073,380	210	1,054	110	·05	Total

Registration Divisions and Union Counties.	Population, 1851.	INDUSTRIAL STATISTICS. Ratio per Cent. of Persons Aged 20 Years and upwards, occupied in				IN-DOOR POOR. Illegitimate Children under 16.	
		Mechanical Arts, Trade, and Domestic Service.	Agri- culture.	Manu- fac- tures.	Mining, and Mineral Works.	Of Able- bodied Inmates.	Of not Able- bodied Inmates.
NORTH MIDLAND.							
Leicester	234,164	42·3	17·9	4·4	3·7	109	6
Rutland	24,214	25·2	30·8	1·8	3·1	22	1
Lincoln	397,637	26·0	30·6	1·5	3·5	180	27
Nottingham	293,331	36·7	16·7	9·5	5·0	87	26
Derby	259,965	26·0	16·7	12·3	10·2	28	52
Total	1,209,311	31·8	21·7	6·4	5·3	426	112
NORTH-WESTERN.							
Chester	420,074	27·6	16·0	16·0	4·4	120	10
Lancaster.....	2,055,781	30·2	6·7	22·6	5·5	364	92
Total	2,475,855	29·8	8·3	21·5	5·4	484	102
YORK.							
West Riding	1,162,572	23·0	10·3	23·1	8·8	185	40
East „	250,779	34·5	18·5	4·0	3·1	97	7
North „	187,728	27·2	31·5	2·3	4·4	82	12
Total	1,601,079	25·4	14·2	17·5	7·3	364	59
NORTHERN.							
Durham	411,538	27·3	9·6	2·8	17·6	48	12
Northumberland	303,489	30·3	15·0	2·8	10·7	78	11
Cumberland.....	195,210	25·2	25·6	8·1	7·1	118	11
Westmoreland.....	58,387	24·9	33·5	7·6	3·2	51	—
Total	968,624	27·7	16·1	4·2	12·4	295	34
WELSH.							
Monmouth	177,130	22·0	14·9	1·8	20·7	48	13
South Wales	607,111	22·2	24·7	2·1	12·4	188	23
North „	383,962	21·0	31·7	3·3	9·0	155	8
Total	1,168,203	21·8	25·5	2·5	12·5	391	44
Totals of Unions, &c., in England and Wales	16,628,849	29·9	17·0	8·5	6·5	6,229	931

The summary exhibits this result:—

In one division the percentage of illegitimacy is.....	·04
„ two „	·05
„ three „	·06
„ four „	·08
And in one division (Wales) „	·12

In this table the Metropolis, which as was shown above is low in

Population, 1851.	Out-door Poor, Illegitimate Children.	Total Number of Illegitimate Children.	Mothers of Out-door Illegitimate Children.	Percentage of Total Pauper Illegitimate Children to Population.	Registration Divisions and Union Counties.
234,164	20	135	14	·06	NORTH MIDLAND.
24,214	1	24	1	·10	Leicester
397,637	14	221	11	·06	Rutland
293,331	22	135	15	·05	Lincoln
259,965	18	98	5	·04	Nottingham
					Derby
1,209,311	75	614	46	·05	Total
420,074	39	169	22	·04	NORTH-WESTERN.
2,055,781	814	1,270	420	·06	Chester
					Lancaster
2,475,855	853	1,439	442	·06	Total
1,162,572	464	689	263	·06	YORK.
250,779	7	111	3	·04	West Riding
187,728	29	123	17	·07	East "
					North "
1,601,079	500	923	283	·06	Total
411,538	30	90	18	·02	NORTHERN.
303,489	214	103	129	·03	Durham
195,210	19	148	16	·08	Northumberland
58,387	15	66	8	·11	Cumberland
					Westmoreland
968,624	278	407	171	·04	Total
177,130	23	84	17	·05	WELSH.
607,111	361	572	261	·09	Monmouth
383,962	576	739	391	·19	South Wales
					North "
1,168,203	960	1,395	669	·12	Total
16,628,849	4,288	11,448	2,571	·07	{ Totals of Unions, &c., in England and Wales

the general scale of illegitimacy, is high as regards the pauper illegitimacy. But in this division the class of persons engaged in mechanical arts, trade, and domestic service, greatly predominate.

The mining counties of Durham and Northumberland, which form part of the Northern Division with those of Cumberland and Westmoreland, so remarkable for their high rate of illegitimacy, bring the general average of the division down to the lowest figure. A similar

effect is produced in the South-Western Division by the insertion of the county of Cornwall, and in the West Midland Division by the counties of Stafford, Worcester, and Warwick.

The Welsh Division is peculiar. It is made up of the county of Monmouth, where the illegitimacy is very low in consequence of the large amount of the mining population and of the two Divisions of Wales, North and South. In the latter, where there is a large amount of mining population, the average of illegitimacy would be moderate; but in North Wales, where the agricultural labourers abound, the ratio is very high, namely, 19 per cent.; and thus the whole registration division ranges so far above all the others.

As a general rule, it will be seen that in those counties where the proportion of agricultural labourers is high the rate of illegitimacy is same, and such is the case as regards domestic servants, though they are mixed up with the mechanical and trading labourers and artisans, which is altogether a very comprehensive class.

VII.—Of Illegitimacy in Scotland.

The condition of Scotland, with reference to the subject of this paper, is greatly elucidated by the general registration established by the Statute 17 and 18 Vict., cap. 80.

In vol. xiv of the *Journal* of this Society is a valuable paper compiled by Dr. Stark, upon the Vital Statistics of Scotland, and his fifth division relates to *births*. As his paper was composed in 1850, the data upon which he formed his conclusions are isolated and scanty. He begins by remarking, that “the state of the registers of “births in Scotland is a disgrace to any country.” See p. 67. He then continues:—

“The only use which I found could be made of the registers of “births was to ascertain the proportion of illegitimate children; and “as the result is curious in itself, and is the only fact of the kind “extant relative to Scotland, it seems worthy of being put on “record.

“In seventy-nine parishes there were among the members of the “Established Church 4,305 births, and of these 328 were *illegitimate*, “being in the proportion of 1 illegitimate birth in every 13·12 “births,” or 7·8 per cent.

It appears now that the number of births in Scotland are about 100,000 annually, therefore, the number which came under the scrutiny of Dr. Stark was a very small proportion of the whole of the births in Scotland. Moreover, it does not appear from what parts of Scotland he derived his information.

The Registrar-General of births, deaths, and marriages in Scotland has presented to Parliament returns which give a less favourable result than that above detailed by the learned author.

From those returns, and from the first and second complete registration reports, the following table is compiled. It shows the births of illegitimate children as distinguished from the legitimate for the years 1856 and 1859 as follows :—

	Population.		Acreage.	1856.			1859.		
	1851.	1861.		Total Births.	Illegitimate Births.	Percentage of Illegitimate Births.	Total Births.	Illegitimate Births.	Percentage of Illegitimate Births.
SCOTLAND	2,888,742	3,061,329	20,047,462	101,821	8,695	8·5	106,732	9,606	9·0
<i>Divisions.</i>									
Northern	127,035	130,518	2,651,769	3,455	183	5·2	3,462	190	5·5
North-Western	174,735	167,180	4,739,867	4,505	249	5·3	4,783	279	5·8
North-Eastern	348,366	366,607	2,429,594	11,405	1,622	14·2	12,087	1,824	15·1
East Midland	514,907	523,419	2,784,119	16,802	1,562	9·2	17,181	1,695	9·9
West Midland	243,506	242,418	2,678,220	7,542	554	7·3	8,179	593	7·3
South-Western	881,092	1,008,080	1,431,875	38,557	2,674	6·9	40,479	2,939	7·3
South-Eastern	383,217	409,024	1,210,788	12,925	1,025	7·9	13,767	1,181	8·6
Southern	215,884	214,083	2,121,221	6,630	826	12·4	6,794	905	13·3
<i>Counties.</i>									
<i>NORTHERN.</i>									
Shetland.....	31,078	31,678	} 988,873	{ 825	34	4·0	847	41	4·8
Orkney	31,455	32,416		{ 788	38	4·8	785	26	3·3
Caithness	39,782	42,304	455,708	1,258	96	7·6	1,251	99	7·9
Sutherland.....	24,720	24,120	1,207,188	584	15	2·5	579	24	4·1
<i>N.-WESTERN.</i>									
Ross and Cro- marty	} 83,781	} 82,301	} 2,016,375	} 2,265	} 86	} 3·7	} 2,383	} 96	} 4·0
Inverness									
	90,954	84,879	2,733,501	2,240	163	7·2	2,400	183	7·6
<i>NORTH-EASTERN.</i>									
Nairn	8,076	8,349	137,500	236	15	6·3	241	24	10·0
Elgin (or Moray)	40,862	44,215	340,000	1,318	151	11·4	1,465	181	12·4
Banff	51,023	56,040	437,219	1,815	257	14·1	1,910	316	16·5
Aberdeen	213,466	223,154	1,260,625	7,049	1,072	15·2	7,424	1,175	15·8
Kincardine.....	34,939	34,849	252,250	987	127	12·8	1,047	128	12·2
<i>EAST MIDLAND.</i>									
Forfar	193,632	206,983	586,730	6,984	739	10·5	7,261	791	10·9
Perth	136,305	132,780	1,814,063	3,729	398	10·6	3,771	395	10·5
Fife	153,789	154,806	322,031	5,174	342	6·8	5,157	394	7·6
Kinross	9,626	8,729	49,531	239	23	9·6	269	38	14·1
Clackmannan	21,555	20,121	29,744	676	60	8·8	723	77	10·7
<i>WEST MIDLAND.</i>									
Stirling	84,861	88,273	295,875	2,995	236	7·8	3,459	255	7·4
Dumbarton	46,995	54,181	189,844	1,815	130	7·1	1,947	154	8·0
Argyll	95,042	83,776	2,083,126	2,325	163	7·0	2,338	149	6·4
Bute	16,608	16,188	109,375	407	25	6·1	435	35	8·0

	Population.		Acreage.	1856.			1859.		
	1851.	1861.		Total Births.	Illegitimate Births.	Percentage of Illegitimate Births.	Total Births.	Illegitimate Births.	Percentage of Illegitimate Births.
S.-WESTERN.									
Renfrew	157,950	168,593	150,000	6,281	399	6·3	6,538	442	6·8
Ayr	189,973	199,051	650,155	7,323	645	8·8	7,981	672	8·4
Lanark	533,169	640,436	631,719	24,953	1,630	6·5	25,960	1,825	7·0
SOUTH-EASTERN.									
Linlithgow	30,590	39,245	64,375	1,314	104	7·9	1,603	130	8·1
Edinburgh	259,493	273,965	254,300	8,638	637	7·3	9,036	754	8·3
Haddington	36,363	37,615	185,937	1,250	118	9·4	1,264	111	8·8
Berwick	36,165	36,489	309,375	1,047	94	8·9	1,122	101	9·0
Peebles	10,804	11,300	226,488	337	37	10·9	368	38	10·3
Selkirk	9,802	10,410	170,313	339	35	10·3	374	47	12·6
SOUTHERN.									
Roxburgh	51,225	53,712	460,938	1,658	162	9·7	1,641	178	10·8
Dumfries	78,167	79,503	722,813	2,487	338	13·5	2,450	334	13·6
Kirkcudbright	43,103	38,830	610,734	1,117	141	12·6	1,417	193	13·6
Wigtown	43,389	42,068	326,736	1,368	185	13·5	1,286	200	15·6

The total births for 1858 were 104,195 ; of this 9,260 were illegitimate, so that the percentage of illegitimacy was 8·8.

The above table shows, that in 1859 it was 9·0. In 1860 the total births were 105,704, the illegitimate 9,631, percentage of illegitimacy 9·1. According to the return lately published by the Registrar-General for 1861 the total births were 107,636, of these 9,856 were illegitimate, and the percentage was 9·2.

Hence we have this result—

1856	8·5	1860	9·1
'58	8·8		
'59	9·0	'61	9·2

During the last session of Parliament the Registrar-General of Scotland presented his first detailed report for the year 1855. It contains the report made to him by Dr. Stark, now the Deputy-Registrar for Scotland, and a considerable portion of that very able document is devoted to the subject of illegitimacy in Scotland. The second report, namely that for the year 1856, has been presented in this session, and contains another report of the like character.

In these reports Dr. Stark divides the population into three classes, *insular*, *mainland*, and *town*. The first term applies to those who reside in the islands of Scotland, the second to those who reside in the rural districts of the mainland, including the smaller towns

with less than 10,000 inhabitants; and the third to those who reside in the larger towns and districts connected therewith.

Dealing with the years 1855-56, the population is thus estimated:—

	1855.	1856.
Insular.....	166,487	163,533
Mainland.....	1,764,378	1,739,195
Town.....	1,075,093	1,072,307
Total	3,005,958	2,975,035

The births are ascertained to have been for 1855—

	Total Births.	Illegitimate Births.	Percentage of Births to Population.	Percentage of Illegitimate to Total Births.
Insular	3,733	162	2·24	4·3
Mainland	53,347	4,589	3·02	8·6
Town	36,269	2,606	3·37	7·1
Total	93,349	7,357	3·10	7·8

For 1856—

	Total Births.	Illegitimate Births.	Percentage of Births to Population.	Percentage of Illegitimate to Total Births.
Insular	4,320	240	2·64	5·5
Mainland	56,705	5,375	3·26	9·4
Town	40,796	3,082	3·80	7·5
Total	101,821	8,695	3·42	8·5

It has been shown above that in the later years the rate of illegitimacy has been greater than appears by these tables, and, therefore, as Dr. Stark himself remarks, many illegitimate births escaped registration during the commencement of that measure.

However, dealing with the figures as supplied, he remarks in the first report, that “the proportion of illegitimate births in the several counties varied very much, for while those included in the Northern and North-Western Divisions of Scotland only furnished 4·6 per

“cent. of the births as illegitimate, the proportion of illegitimate births was 11·9 per cent. in the counties included in the Southern Division, and 13 per cent. in those included in the North-Eastern Division.” These proportions are lower than those shown by the tables for 1859.

It being admitted that the proportion of illegitimate births is very high, it is stated that much crude theory has been started in the endeavour to account for the fact, though Dr. Stark observes, “that as yet we seem to be as far as ever from the solution of the problem; and this, probably, in a great measure from the circumstance that we have only got at one of the numerous facts which bear on the case.” He then proceeds to endeavour to collect others.

His first important fact is, that in Scotland the illegitimate births are almost solely confined to the labouring classes, the mothers consisting chiefly of women employed in farm or agricultural labour, of factory girls, domestic servants, and persons engaged in needle-work.

He remarks upon the greater tendency to illegitimacy in the North-Eastern and Southern Divisions than in the manufacturing and mining counties constituting the South-Western Division, and this remark is reiterated in the Second Report.

To some extent this distinction prevails in England.

He notices that few or no illegitimate births occur among the fishing villages, a fact which is scarcely corroborated by the English returns.

But this is a remarkable result of his investigation, that “the counties which show the highest proportion of illegitimate births are the counties which are in the highest condition as to education; and on the other hand, the counties which produce the fewest illegitimate births are those whose education is at the lowest ebb.” He offers this explanation: “that while the counties in which illegitimacy was at a low ebb abounded in improvident marriages the superior educational acquirements, and consequent more thoughtful habits engendered thereby, prevented these improvident marriages in the counties where illegitimacy was high, but that unfortunately the moral training had not been carried so far as to enable them to master their natural passions.” In the Second Report, the existence of this fact is again observed upon.

He remarks in the first report, that “the same apparent close connection is not observed in England to anything like the same extent.” But a reference to the tables above, prepared for the different counties of England, will tend to confirm the view expressed by the Registrar-General as to Scotland.

He refers to the county of Lanark, where, as he says, only 6·5

per cent. of the births were illegitimate, but the marriages amounted to 85 in every 10,000. In this ill-educated county, then, there appeared to be scarcely any check on marriages; it may therefore safely be inferred that improvident marriages were common, and the natural consequence was, that the proportion of illegitimate births was very small indeed. “From this it will be seen that we feel inclined
“to attribute no small proportion of the illegitimacy to the inconti-
“nence of youth, which in some counties finds its legitimate channel
“in marriage, though it may be in improvident marriage, while in
“others the prudential check operates so strongly that it results in
“illegitimacy.”

This is corroborated, to a great extent, if the tables are referred to above, which show the state of illegitimacy in Lancashire, and the West Riding of Yorkshire, and in Cornwall.

Dr. Stark further elucidates this conclusion by referring to the rural population, in which he finds illegitimacy to be most common. Upon this point he remarks, that “it is not the large farms (which
“are comparatively few in number), and where the labourers lodge
“in bothies, but the small farms, which are laboured by the tenants
“themselves, or with the aid of one or two male or female assistants,
“who sleep in the house or offices, and are treated in all respects as
“one of themselves, which furnish the great proportion of illegiti-
“mate births in the rural districts.”

It is probable that a minute investigation of the state of the rural population in the counties of England, where the illegitimate rate is highest, would go far to support this conclusion.

Before quitting the subject, Dr. Stark observes, that “in the
“country, at least, the great amount of illegitimacy is not properly
“ascribed to vice.” He explains this by showing “that the parents
“of many of the illegitimate children are cohabiting as married
“persons, are true to each other, and are rearing a family.”

Then why don't they marry? It is suggested, by some registrars that if the parents, without trouble or expense, could register their marriages in some simple form, these cases of concubinage would cease. Other registrars advert to the high proclamation fees which induce parties to cohabit without going through the form of marriage rather than pay what they consider an exorbitant demand.

These appear to be very insufficient explanations.

“But,” Dr. Stark adds, “the high proportion of illegitimacy is
“attributed by others to the too easy law of marriage in Scotland,
“especially in so far as regards the subsequent legitimation of the
“child. They think that that law conduces to increase illegitimate
“births, inasmuch as the woman knowing that the child which may
“be born will sustain no legal damage if she should succeed in
“getting its father subsequently to marry her, yields herself too easy

“ a prey to him, taking her chance that the birth of a child will
“ secure his consent to the marriage. For these, and other reasons,
“ certain parties have endeavoured to raise an agitation for an
“ alteration of our marriage laws ; and should such ever be done, it
“ is to be hoped that no changes will be rashly made till their whole
“ bearings on this important subject shall have been fully con-
“ sidered.”

In this hope every one will readily concur, so that no rash legis-
lation may take place with reference to a system which affects so
greatly the interests and feelings of society. But it may be per-
mitted to introduce here the observations of Dr. Stark, from the
volume already referred to. He observes, “ I cannot but regard the
“ Scottish laws relative to legitimacy as both wise and just ; that the
“ subsequent marriage of the parents legitimizes all the children born
“ before marriage. I hold it to be one of the crying evils of the
“ English law that no amount of repentance of the parents, and no
“ subsequent marriage, can legitimate the offspring before the
“ marriage. Scotland is a standing proof that the allowing children
“ to be legitimized by the subsequent marriage of their parents is
“ not found to have any hurtful effects on the morals of the people ;
“ and as this is both an enlightened and a moral mode of reducing
“ the proportion of the illegitimate among the general population, I
“ hope the day is not far distant when we shall see our legislators
“ assimilate the English laws on this point to those of Scotland.”

This language is much stronger than that used by this expe-
rienced statist after the exact knowledge which he has obtained of
the actual state of his countrymen.

So far as the disabilities which accompany illegitimacy arise from
the provisions of the law, they may certainly be removed by an
alteration of that law, but it is impossible to make a legitimized
child the same in all respects as one legitimate when born. The
proportion of the births cannot be altered ; and when it is seen that
the proportion of illegitimate births in England is only 6·5 per
cent., which is a third less than what it is in Scotland, it is by no
means certain that our legislators would feel themselves justified in
adopting that law of Scotland so much praised by Dr. Stark, which
our sturdy ancestors, in their ancient parliament, rejected with the
emphatic indignation of national feeling.

On the other hand, when the tables hereafter set forth, which
show the illegitimacy of foreign countries are regarded with atten-
tion, it will occur to many that where the law of legitimization by
subsequent marriage prevails, the rate of illegitimacy is higher than
in those countries which, for the most part, reject this law.

It is certainly grateful to our feelings to allow all possible con-
siderations to repentance and to reparation of injuries, but as a

matter of sound policy it seems to be better to remove all temptations and palliative pretexts which excuse the commission of offences, and it is to be feared that the hope of a subsequent marriage, and the legal effect thereof upon the offspring may too often induce a woman to submit to that conduct which in its first consequences produces distress and shame.

VIII.—*Of Illegitimacy in Ireland.*

Of the state of illegitimacy in Ireland the author can give no account. He cannot find any authentic information of it, there being as yet no registration of births in that country; and he believes that there has been no attempt to compare the baptismal registers in the Protestant churches and the Catholic chapels. Some information as to the mothers of illegitimate children relieved in the workhouses is to be found in the reports of the Irish Commissioners, but no statistical use can be made of it.

IX.—*Of Illegitimacy in Foreign Countries.*

It is now proposed to make some comparison between the illegitimacy in this country with that in the other States of Europe as far as it has been practicable to the author of this paper. He has obtained the information which follows from the "Sixth Annual Report" of the Registrar-General, from the Statistical Tables presented to Parliament in 1857-61, parts iv, v, and vii, and from the "Annales de l'Economie Politique, et de la Statistique," par MM. Block et Guillaumin. It is necessary to premise that these returns are open to some objections, as supplying accurate data for comparison. They are collected for different years, and some instances are only averages of years, in others they are aggregate for several years. It is not certain how they have been obtained returns, whether the births have been ascertained from registers of births or of baptisms, and some of the returns include still-births while others exclude them.

However, with all this uncertainty as to the complete correctness of the returns, the following information may be properly laid before the Society:—

Country.	Year.	Births.		Percentage of Illegitimate to Total Births.	
		Legitimate.	Illegitimate.		
Austria..... {	1842	792,890	101,821	11·38	Still-births included „ excluded
	'51	1,251,551	120,800	8·96	
Bavaria {	1838-39	118,456	30,729	20·598	Still-births included
	'51-52	122,547	32,930	21·18	
	'56-57	124,006	36,292	22·64	
Belgium {	1842	128,781	9,354	6·772	Still-births excluded
	'50	120,107	11,309	9·4	
	'55	116,096	9,851	7·7	
	'59	138,701	11,115	7·4	
Denmark	1835-39	58,356	6,020	9·351	
Finland	1857	51,649	3,831	6·91	
Hanover {	1842	50,072	5,487	9·876	
	'55	49,969	5,485	9·89	
Holland {	1854	100,113	4,131	3·96	Still-births excluded
	'59	110,837	4,732	4·09	
Norway {	1831-35	169,252	12,111	6·678	
	'51	40,809	4,090	9·11	
	'55	44,855	4,583	9·27	
Prussia {	1841	549,376	42,129	7·122	Still-births included „ excluded
	'53	612,937	47,185	7·15	
	'58	668,574	61,596	8·44	
Sardinia	1828-37	1,427,019	30,474	2·091	
Saxony..... {	1841	59,582	10,512	14·997	Still-born included
	'53	70,870	11,261	13·71	
	'58	75,716	14,399	15·98	
Sweden {	1831-35	445,410	31,289	6·59	
	'51	100,459	10,606	9·55	
	'55	104,269	10,803	9·39	
Switzerland	1850-51-52	66,100	3,900	5·9	
		Average	Average		
Tuscany	1853	65,757	3,965	6·	
Wurtem- burg..... {	1842	66,597	8,859	11·74	
	'57	53,980	10,340	16·08	

Mr. Hendriks has lately supplied this Society with much valuable information regarding the Statistics of *Spain*, and in his memorandum, published at p. 476 of vol. xxiii, he gives these figures for the baptisms in Spain.

	Total Number of Children.	
	1858.	1859.
Males, <i>legitimate</i>	266,221	271,962
Females „	249,897	253,281
	516,118	525,243
Males, <i>illegitimate</i>	15,337	15,793
Females „	14,703	15,287
	30,040	31,080
	546,158	556,323

The proportions of illegitimate to the total number of births were 5·5 in 1858, and 5·6 in 1859. The total population of Spain in 1857 was 15,464,340. These tables, therefore, show the result of the examination for the whole of that country exhibit a favourable view of the conduct of the inhabitants. But it must be observed, that here the tables are derived from the baptisms of the children ; and it has been already shown that the baptismal registers in this country gave very erroneous results.

In the statistical returns for the island of *Sicily*, published by the “ Direzione Centrale di Statistica por la Sicilia,” an account is given for that island as follows, for the year 1856:—Total births, 87,992 ; of these were illegitimate, 3,281 males and 3,306 females ; total 6,587, or 7·37 per cent. of the whole.

Dr. Schleisner, in his Essay on the Vital Statistics of *Iceland*, published in vol. xiv of the *Journal* of this Society, gives a return of the illegitimate births in that island. At p. 9 several tables are set forth, from which it appears that he ascertained the average number of births during the years 1838-47 to be annually 2,054, of these the average number of illegitimate births was 280, or the high rate of 14 per cent. It must, however, be observed, that the numbers dealt with are but small.

The condition of *Sweden*, in reference to this subject, has been fully detailed in Mr. Hendriks’ paper upon the Statistics of that country, ante p. 132 where he shows that while in the two periods of observation, 1776-80 and 1780-85, the percentage of illegitimacy was only 3·11, in the last quinquennial period published, namely 1851-55, it had attained exactly three times that ratio, or 9·33 per cent.

The state of *Prussia*, in reference to this subject, has been brought under the notice of the Society in the paper read by Sir F. Goldsmid, already referred to in vol. xxiii, p. 202, where,

however, the returns are only brought down to the year 1849. It is shown, in p. 206, that there was little variation in the proportions between legitimate and illegitimate births between the years 1816 and 1849, in both of which years there was 1 illegitimate child born out of every 13 or 14, though in the interval there had been occasional variations. But it appears, by the tables presented above, that there is an increase in the ratio in the years from that time, as in 1858 the ratio is expressed 8·44 to 100, or about 1 in 12.

The editor of the tables referred to in that paper, pointing out that in the kingdom of Prussia there are great differences between the different governmental divisions, remarks, that in those where the proportion of the illegitimate births is the least the laws do not give to the mothers of illegitimate children a legal remedy against the fathers, or at least do not facilitate proceedings for that purpose, as is done in other provinces.

In England, the legal remedy conferred upon the mothers by the law of 1844, seems, according to the previous remarks in the present paper, to establish a different result.

It is further shown, by the Prussian tables, that in towns “the proportions are more unfavourable than in the country, where, at least oftener than in town, the fault of illicit intercourse is repaired, as far as may be, by subsequent marriage.”

In regard to *France*, this information is obtained from the Registrar-General’s Report, the Statistical Tables above referred to, and the “*Annales de l’Economie Politique, et de la Statistique.*”

Year.	Births.		Percentage of Illegitimate to Total Births.
	Legitimate.	Illegitimate.	
1842	912,968	69,928	7·114
’50	891,407	69,970	7·8
’55	838,147	64,189	7·11
’56	883,828	68,288	7·17
’57	869,819	70,890	7·53
’58	894,710	74,633	7·8

M. Legoyt, in the “*Annuaire de l’Economie Politique, et de la Statistique,*” for 1860, remarks that the agglomeration of the population has a marked influence on the number of illegitimate unions, and consequently upon the births which result from them; and then he gives this analysis for the whole of France in respect of the year 1857.

	Illegitimate. Births.	Total Births.	Ratio of Illegitimate to 100 Births.
Department of the Seine	15,013	56,131	26.75
Urban population	29,008	241,490	12.01
Rural ,,	26,869	643,088	4.22
The whole of France	70,890	940,707	7.53

He observes, that the number of illegitimate children is low in the country, but nearly three times greater than in towns.

In regard to the department of *la Seine*, which comprises the city of Paris, the number of these children is, he states, there altogether *exceptional*. It is by no means clear in what sense he uses this term.

He continues to remark, that, to explain these differences between the towns and the rural parts, a certain number of the illegitimate births registered in the towns do not belong to the resident population. Many of the countrywomen come into the towns to lie-in there, and the places near the towns furnish the hospitals with a remarkable number of the foundlings who are yearly received therein.

This is an explanation which is often rendered. It is difficult for us in this country, to dispute the fact. So far as the density of the population might afford opportunities for concealment it might be expected that the result would be the same in England as in the towns on the Continent. But it has been shown above to be very different. The effect of the foundling hospitals cannot be tested by us, inasmuch as none such exist in the large towns in England.

M. Legoyt then makes this observation:—"The comparison of 1857 with the preceding years shows that the increase in the number of the illegitimate births only occurred in the rural population, there having been a decrease in the other classes. This may have been an accident; but if it should be confirmed by the results of the following years it would give rise to very grave reflections. It would become necessary," he says, "to examine whether this increase did not coincide with the removal of the manufactures from the towns into the country." In the "Annuaire" for 1861, he observes, that this result is again obtained from the returns for 1858. This class of children had scarcely increased in the towns, and it had diminished in the department of *la Seine*, but there was an increase in the kingdom generally.

M. Legoyt points out a distinction which prevails in France between illegitimate children, *recognised* and *not recognised*. The former are expressly acknowledged by one or other of the parents at the time of registration, or by some act in their first year. The latter

are only described as illegitimate by the witness of the birth giving the name of the father or mother. He supplies this table of the illegitimate children for 1858.

	Recognised.	Not Recognised.	Percentage of Recognised.
Department of la Seine	4,138	11,092	27·17
Town population.....	7,347	22,599	24·53
Rural ,, 	12,127	17,330	41·16
The whole of France	23,612	51,021	31·63

This eminent statist continues, in his commentaries on the subject in the volumes of the “Annuaire,” to associate illegitimacy with the density or the agglomeration of the population.

It cannot be said that the examination of the state of England previously made confirms his views as universally true.

To facilitate the deduction of any inferences which may be drawn from the state of the marriages and the density of the population in the different countries under this present review, the following table is extracted from the Statistical Tables parts iv and v, and from some other sources:—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
Finland	1857	1,693,023	12	11,995	<i>One in</i> 141
Sweden	'57	3,687,033	22	27,253	135
Norway	'55	1,490,047	12	12,009	124
Denmark	'60	2,605,024	119	20,142	129
Prussia.....	'58	17,739,913	165	167,387	106
Hanover	'58	1,843,976	124	14,428	128
Bavaria	'57	4,615,748	156	28,820	160
Saxony	'58	2,122,148	373	19,752	107
Wurtemberg	'58	1,690,898	227	—	—
Holland	'59	3,494,161	280	27,007	129

M. Legoyt, in the “Annuaire,” supplies this information for—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
France	1857	36,039,364	256	295,510	<i>One in</i> 122

From the "Anuario Estadistico de Espana," 1860 :—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
Spain	1859	15,464,340	78	112,903	One in 137

The Registrar-General for Scotland gives this information for—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
Scotland	1856	2,975,035	92	20,740	One in 144

And from the previous part of this paper the same is obtained for—

Country.	Year.	Population.	Density of Population. Average to One English Square Mile.	Number of Marriages.	Proportion to Population.
England	1851	16,921,888	332	146,484	One in 114

Little result can, however, be obtained from these comparisons. In Saxony the population is very dense, the number of marriages is considerable, yet the illegitimacy is very great. In Holland the illegitimacy is very low ; the population is, however, very dense ; the marriage-rate is moderate. In Bavaria the marriage-rate is the lowest, the density of the population is moderate, the illegitimacy is, however, very high. In Spain the marriage-rate is low, so also is the density, and also the rate of illegitimacy.

In Scotland the density is very low, the marriage-rate is only not so low as in Bavaria, and the rate of illegitimacy is high. In England the density is very great, the marriage-rate is high, and the illegitimacy is low.

Referring, now, to the returns for the different countries thus collected together, it will be seen that the following is the order of the several countries, beginning with the smallest in amount of illegitimacy :—

Sardinia.	Belgium.	Denmark.
Holland.	Sicily.	Sweden.
Spain.	France.	Hanover.
Switzerland.	Prussia.	Iceland.
Tuscany.	Austria.	Saxony.
England.	Norway.	Wurtemberg.
Finland.	Scotland.	Bavaria.

Of Sardinia, which is placed first, the account is so remote that it is not fairly placed in the list, and probably some of the other countries might be differently ranged as regards their immediate neighbours if the returns were all taken for the same period; but the general position would remain much the same.

The gradation is remarkable. It cannot be said that the religion which prevails in the respective countries affords any satisfactory explanation. The most Catholic country stands high on the list, another closes it. Some of the Protestant countries are placed high while others are nearly at the bottom.

In the Prussian returns above referred to this is remarkably illustrated. In vol. xxiii, p. 208, there is a table distributing the illegitimate births for several years among the religions existing in that country, and it is there shown that in 1849 *one* illegitimate birth occurred for the following numbers of legitimate births among:—

Protestants.	Catholics.	Mennonites.	Jews.
10·78	16·35	57·88	40·09

The two latter columns, of course, apply to a very few instances.

The editor of those returns rejects all inference that the religious belief is the real cause of the difference by referring to the high rate of illegitimacy in countries and cities principally, if not exclusively, Catholic.

But it is to be observed, that in those countries which contain populations of different religions the rate of illegitimacy is high, and probably some influence must be attributed to the difficulties attending marriages between persons of the different religions who form attachments, which through those difficulties cannot end in marriage but result in illicit unions.

Again, it is understood that in some Continental States marriages are either directly or indirectly prohibited until the parties can establish, to the satisfaction of a proper functionary, that they have obtained for themselves the means of maintaining their offspring. This frequently fails, concubinage follows instead of marriage, and the offspring is illegitimate.

Whether there is any principle of moral sentiment which, recognising Morganatic or left-handed marriages among the highest ranks tolerates more vulgar unions, though not marriages, in the commonalty, is a question which deserves grave consideration.

The prohibition of divorces in those countries where it exists, doubtless, has an influence upon the progress of illegitimacy, as the nature of mankind cannot be controlled by the civil laws to such entire subjection as to compel the continued intercourse of man and

wife, when inveterate discord has arisen between them. The results are necessarily separations in fact, and the formation of other unions, from which an illegitimate progeny arises. If legal divorces lead to any evil of a different nature it seems difficult to deny that they tend to check illegitimacy.

It has been seen that in England and Scotland the rate of illegitimacy is raised by the state of the rural population against the metropolis and the large towns. But on the Continent the case is different. There, for the most part, the general rate is greatly affected by the high rate of the capitals and principal cities. It will be interesting to examine this proposition.

In a previous page (239) have been shown the numbers of illegitimate births in all the large towns of England and Wales, a few of the cases are repeated here; the account of the other places is taken from the Registrar-General's "Sixth Annual Report," p. 36, and some other sources.

Names of Places.	Date.	Total Number of Births.	Illegitimate.	Percentage of Illegitimate to Total Births.
London (Metropolis)	1845	65,884	2,423	3·7
Birmingham	'45	5,646	253	4·5
Liverpool.....	'45	10,103	402	4·
Manchester	'45	7,860	500	6·7
Leeds	'45	6,653	407	6·4
Genoa	'38	33,034	2,665	8·07
Berlin	'40	29,914	4,472	14·95
Frankfort.....	'42	3,784	652	17·23‡
St. Petersburg	'28-9	9,625	1,809	18·80
Turin	'38	36,313	6,867	18·91
Stockholm	'31-5	13,291	5,409	40·70
Glasgow	'56*	15,170	1,049	7·0
Edinburgh*.....	'61†	16,536	1,435	8·6
Madrid (as given by Mr. Hendriks, <i>ubi supra</i>)	'56	5,289	403	7·6
Barcelona.....	'59	10,817	2,357	21·8
Paris	'59	6,163	747	12·1
	'42	40,005	11,527	28·21
	'57	56,131	15,013	26·75
	'58	57,793	15,230	26·35

* From the Registrar-General for Scotland, "Second Report," pp. 17, 18.

† Dr. Strang's "Statistics of Glasgow for 1861.

‡ Still-born not included.

A decrease is shown in regard to Paris; whether it is casual or regular is a question at present not capable of solution.

From the Statistical Tables, part v, the following extraordinary figures are obtained:—

	Year.	Legitimate Births.	Illegitimate Births.	Percentage of Illegitimate to the Total Number of Births.
Vienna	1851	10,228	10,963	51·7
Milan	'51	4,513	2,328	34·0
Venice	—	3,629	648	15·2
Prague	—	3,461	3,035	46·7
Pesth	—	4,543	878	16·2
Lemberg	—	1,300	1,355	51·0
Trieste	—	2,738	923	25·2
Florence	1853	26,545	2,364	8·2
Palermo *	'56	6,580	785	10·6
Messina *	'56	3,913	539	12·

* From the Sicilian returns above referred to.

The state of Vienna is most remarkable. In the Report of the Registrar-General a return was printed for the years 1834-37-39, when the total number of births was shown to be 47,191, of illegitimate 21,763; showing a proportion of 46·12 illegitimate to 100 total. In twelve years the above return is given for the year 1851, and shows a percentage of 51·7 of illegitimate births; so that more than one-half of the children born in that year at Vienna were illegitimate. The state of Lemberg was almost as bad, and Prague was little better. Where the state of the population is such, little effect can be produced by the operation of moral sentiment. The mothers cannot be influenced by shame, and the children cannot be affected by any sense of degradation; but unless there be no distinction in the civil rights resulting from illegitimacy there must arise great embarrassments, and oftentimes grievous injuries, from so large a proportion of baseborn children.

A question naturally arise as to what causes the vast disproportion between the metropolis and large towns of England and the principal cities of the Continent and the neighbouring kingdom of Scotland?

Some writers refer to the existence of the foundling and maternity hospitals which exist in many of those cities; but they do not exist in all of them, and certainly there is no lack of hospitals and workhouses in London where the poor pregnant woman may be delivered, while the vast circuit of this metropolis affords the amplest opportunities of retirement and concealment.

In the "Annuaire de l'Economie Politique, et de la Statistique pour 1858," p. 190, a return is given of the number of births in Paris during 1856.

It appears that, in all there were 37,697 births, of these 11,749 were illegitimate, 5,835 occurred in the hospitals, 5,914 at the homes of the mothers. It is shown in p. 240 that during that year 3,943

children were admitted into the Foundling Hospital; 3,042 were deposited at the time of birth, 901 were more of advanced age. Of these, 196 came from other hospitals, 3,084 were born at their homes in Paris, and 564 came from without the city.

674 were supposed to be legitimate, 3,269 were presumed to be illegitimate.

It is then stated, that of 3,383 mothers who were known, only 551, or about one-sixth, were born in the department of la Seine; of the others, 2,550 *belonged* to other departments, and 282 to foreign countries.

There is an ambiguity here as to what is meant by *belonging*. Some mothers may have been born in Paris, others out of it, but may have resided there for a long period of time, and in the sense of domicile may be said to have *belonged* to that city.

But it is to be remarked, that as 5,835 births occurred in the hospitals, and about 3,000 were received into the Foundling Hospital, no less than 8,835 out of the 11,749 may be considered as being fostered by these institutions.

On referring to the Registrar-General's Report for 1856, it will be seen that the total number of births for that year in London was 87,430; of which 3,646 were illegitimate. There were then 46 workhouses, 13 general hospitals, and 4 lying-in hospitals in the metropolis. Some cases of illegitimate births might have occurred in the general hospitals, but the lying-in hospitals are provided for married women only.

Is any explanation to be derived from the extent of public and private prostitution? Of course, this social evil may be reasonably expected to stay the progress of population, and consequently would have an effect upon the illegitimate as well as the legitimate births. But it does not account for the great disproportion which exists between the English metropolis and large towns and the Continental cities. Dr. Stark, in his report to the Registrar-General for Scotland (Second Report, p. 14), remarks, "The fact stares us in the face, that in the Continental towns where illegitimacy attains a dimension which it is to be hoped will never be witnessed in this country, the so-called social evil exists to an extent quite unknown in this country, and instead of tending to lower the proportion of illegitimate births, greatly increases it." He also illustrates his remark by an examination of the state of Glasgow and Edinburgh.

It will not be denied that there is a large amount of prostitution and concubinage in this great metropolis; but great as it is it cannot explain the enormous difference between the rate of illegitimacy therein and that of Vienna, Paris, Stockholm, St. Petersburg, Frankfort, and Madrid.

No answer can be given at present to the inquiry.

It is necessary, indeed, that great care should be used in forming any conclusions upon the subject. Long and minute investigations will be required by the philosophical statist who undertakes the task of solving the problem which is raised by the cursory examination of the tables produced annually or periodically by all civilized nations. Political, moral, religious, social, legal, and natural conditions bear upon the question, while accidental circumstances, and the variations in the modes of obtaining and recording the facts must not be overlooked in the comparison requisite for correct and sound deductions.

It is, however, most satisfactory to perceive, that though in almost all other countries where an opportunity is given of tracing the rate for successive years there appears to be a gradual increase in the rate of illegitimacy that rate has remained stationary, or rather with a slight decline, in England for the last twenty years, while the marriage-rate, on the contrary, has there very sensibly risen.

Much of this improvement may be due to the judicious legislation of the last thirty years, which has rendered the celebration of marriage more simple in point of legal form,—has removed what, to some persons, created violations of conscience in the performance of the ceremony,—and has dealt in a more salutary and effectual manner with the serious grievance of pauper bastardy.

But it is reasonable to assume that the great improvement in the material condition of all classes of society for many years, the peace and calm which has existed in this country for nearly half a century,—and the bright examples of our queen and her consort, now so deeply deplored, distinguished by their domestic virtues and the purity and decorum of their lives,—have tended to preserve England from following the downward course which so many countries of Europe appear to be pursuing.

Let us hope that the attention which has been paid to the education of children now growing up to manhood and womanhood,—the extension of religious instruction among the lowest classes by the missionary efforts of so many pious persons of both sexes,—and the spread of those sanitary improvements in our great towns and country villages, whereby the indiscriminate herding together of the sexes in their narrow dwellings may be prevented,—will not merely retain for England the position she has now obtained in the scale of morality, but yearly advance her until she has reached the highest place.

ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN

OF THE

MARRIAGES IN ENGLAND AND WALES DURING THE FOURTH QUARTER

(OCTOBER—DECEMBER) OF 1861, AND OF THE BIRTHS AND DEATHS

DURING THE FIRST QUARTER (JANUARY—MARCH) OF 1862.

THIS Return comprises the BIRTHS and DEATHS registered by 2,199 Registrars in all the districts of England during the winter quarter that ended on March 31st, 1862; and the MARRIAGES in 12,550 churches or chapels, about 4,572 registered places of worship unconnected with the Established Church, and 635 Superintendent Registrars' offices, in the quarter that ended on December 31st, 1861.

The *marriage-rate*, which had been low in the preceding nine months of 1861, continued rather low in the last quarter of the year. The births were numerous in the first quarter of the present year, as they had been in 1861; and the rate of mortality, which was comparatively low in the last two years, was not high in the first quarter of the present year. The marriage-rate in 1861, and the increase of pauperism in the same period, concur to indicate a less prosperous state of trade and industry in the community; but physical causes, and improvement in sanitary condition, appear to have exercised a favourable influence on the public health.

MARRIAGES.—The number of persons married in the December quarter of last year was 96,972; the total number in the year was 327,490. The marriage-rate of the quarter was 1·904 against an average of 1·991; the marriage-rate of the year was 1·628 against 1·684.

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, *returned in the Years* 1856-62, and in the QUARTERS of those Years.

Calendar YEARS, 1855-61 :—Numbers.

Years	'62.	'61.	'60.	'59.	'58.	'57.	'56.
Marriages No.	—	163,745	170,156	167,723	156,070	159,097	159,337
Births	—	695,562	684,048	689,881	655,481	663,071	657,453
Deaths	—	435,337	422,721	440,781	449,656	419,815	390,506

QUARTERS of each Calendar Year 1856-62.

(I.) MARRIAGES :—*Numbers.*

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	—	33,401	35,150	35,382	29,918	33,321	33,427
June "	—	41,966	43,777	42,042	39,890	41,267	38,820
Septmbr. "	—	39,892	40,541	39,803	38,599	38,669	39,089
Decmbr. "	—	48,486	50,688	50,496	47,663	45,840	48,001

QUARTERS of each Calendar Year, 1856-62.

(II.) BIRTHS :—Numbers.

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	182,005	173,170	183,180	175,532	170,959	170,430	169,250
June „	—	184,718	174,028	175,864	169,115	170,444	173,263
Septmbr. „	—	171,500	164,121	168,394	157,445	161,181	157,462
Decmbr. „	—	166,174	162,719	170,091	157,962	161,016	157,478

(III.) DEATHS :—Numbers.

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	122,192	121,713	122,617	121,580	125,819	108,665	103,014
June „	—	107,721	110,869	105,631	107,142	100,046	100,099
Septmbr. „	—	100,986	86,312	104,216	98,142	100,528	91,155
Decmbr. „	—	104,917	102,923	109,354	118,553	110,576	96,238

In London the *marriages* in the quarter were 7,328; in the north-western counties (Cheshire and Lancashire), which contain a rather larger population than London, the number was 7,092. While the *metropolis* maintained its marriages, as compared with those of the corresponding quarter of 1860, *Lancashire* reported a *considerable decrease*, for in the two corresponding quarters the numbers in that county were respectively 6,835 and 6,083. It was stated in a Registrar's report from Lancashire, made at the end of last year, that "the demand for labour in the cotton factories and the market generally had been fully a third below the average." The midland counties and Yorkshire also exhibited a decrease in marriages.

To take a few towns for examples of *decrease*: In Manchester marriages declined from 1,285 in the last quarter of 1860 to 1,151 in that of 1861; in Ashton from 342 to 271; in Blackburn from 412 to 281; in Preston from 355 to 254; in Stockport from 332 to 218; in Bradford from 575 to 483; in Sheffield from 601 to 471; in Nottingham from 252 to 210.

ENGLAND :—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1856-62, and the QUARTERS of those Years.*

Calendar YEARS, 1856-62 :—General Percentage Results.

YEARS	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
Estmtd. Popln. of England in thousands in middle of each Year....	20,341	—	20,119	19,903	19,687	19,471	19,257	19,043
Persons Married Per ct. }	—	1·684	1·628	1·710	1·704	1·604	1·652	1·674
<i>Births</i> „	—	3·420	3·457	3·437	3·504	3·366	3·443	3·453
<i>Deaths</i> „	—	2·221	2·164	2·124	2·239	2·309	2·180	2·051

QUARTERS of each Calendar Year, 1856-62.

(I.) PERSONS MARRIED :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	—	1·405	1·352	1·422	1·464	1·252	1·410	1·414
June..... „	—	1·709	1·676	1·766	1·716	1·646	1·722	1·638
Septmbr. „	—	1·616	1·572	1·614	1·602	1·570	1·592	1·626
Decmbr. „	—	1·991	1·904	2·012	2·026	1·934	1·880	1·992

(II.) BIRTHS :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	3·644	3·588	3·505	3·707	3·631	3·576	3·604	3·580
June „	—	3·571	3·687	3·512	3·588	3·488	3·555	3·655
Septmbr. „	—	3·285	3·377	3·267	3·389	3·204	3·316	3·276
Decmbr. „	—	3·231	3·264	3·230	3·414	3·205	3·304	3·267

(III.) DEATHS :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	2·447	2·489	2·463	2·481	2·515	2·631	2·298	2·179
June..... „	—	2·201	2·150	2·237	2·155	2·210	2·087	2·111
Septmbr. „	—	2·020	1·989	1·718	2·097	1·997	2·068	1·896
Decmbr. „	—	2·171	2·061	2·043	2·195	2·406	2·269	1·997

The marriages of all England declined, but in some places there was an increase. In the district of St. George, Hanover-square, they rose from 235 to 290; in Wakefield from 117 to 141; in Tynemouth from 146 to 182.

BIRTHS.—The total number of births in the first three months of this year was 182,005; in the same period of last year it was 173,170. The birth-rate, 3·644 was higher than in any of the years 1852-61, with the exception of 1860; the average rate is 3·588.

By a review of results in the Eleven Divisions it will be seen that in eight of them the number of *births* was less last quarter than it had been in the corresponding quarter of 1860; that in London the number was slightly higher; in the North-western Division it was higher by nearly 2,000; in the Northern Division also the births exhibited an increase.

In connexion with the above statement it may be observed here that, in comparing the same two periods, the absolute numbers of deaths were less in all the Divisions except the two last-mentioned, viz., the North-western and the Northern, which embrace Cheshire, Lancashire, Durham, Northumberland, &c. The conclusion is that generally where the quarter was more fruitful than that of 1860 in respect of births it was also unfortunately distinguished by more numerous deaths.

Where many children were born, many died; and their names were enrolled on both sides of the account.

INCREASE OF POPULATION.—The excess of births over deaths constitutes a natural increase of the population. This excess in the quarter was 59,813, which is equal to a daily average of 665.

In the first three months of this year the total number of *emigrants* who sailed from ports in the United Kingdom where there are Government Emigration

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the Nine
QUARTERS ended 31st March, 1862.

1	2	3	4		5	6	7		8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the <i>Mean</i> Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Tem- pera- ture.		
			Beef.	Mutton.		Quarterly Average of the Number of Paupers relieved on the <i>last day</i> of each week.	In-door.		Out-door.	
1860	£	s. d.	d. d. d.	d. d. d.	s. s. s.					
31 Mar.	94 $\frac{5}{8}$	44 5	3 $\frac{3}{4}$ —6 $\frac{1}{2}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	115—145 130	118,523	717,264	38·8		
30 June	94 $\frac{7}{8}$	52 8	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	5 $\frac{1}{2}$ —7 $\frac{1}{2}$ 6 $\frac{1}{2}$	125—160 142	107,050	692,384	50·5		
30 Sept.	93 $\frac{2}{8}$	59 1	4 $\frac{1}{4}$ —7 5 $\frac{5}{8}$	5 $\frac{1}{4}$ —7 $\frac{1}{2}$ 6 $\frac{3}{8}$	125—145 135	101,680	667,680	56·2		
31 Dec.	93 $\frac{2}{8}$	56 9	3 $\frac{1}{2}$ —6 $\frac{1}{4}$ 4 $\frac{7}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	115—130 122	115,158	673,680	42·6		
1861										
31 Mar.	91 $\frac{6}{8}$	55 1	4—6 $\frac{1}{4}$ 5 $\frac{1}{8}$	5 $\frac{1}{2}$ —7 $\frac{3}{4}$ 6 $\frac{5}{8}$	140—155 147	131,501	758,441	39·9		
30 June	91 $\frac{6}{8}$	54 9	4 $\frac{1}{4}$ —6 $\frac{1}{2}$ 5 $\frac{3}{8}$	5 $\frac{1}{4}$ —7 $\frac{1}{4}$ 6 $\frac{1}{4}$	120—140 130	117,802	713,785	51·8		
30 Sept.	91 $\frac{3}{8}$	52 1	4 $\frac{1}{4}$ —6 $\frac{1}{2}$ 5 $\frac{3}{8}$	4 $\frac{7}{8}$ —7 5 $\frac{7}{8}$	85—110 97	112,932	693,649	60·4		
31 Dec.	93 $\frac{2}{8}$	59 3	4—6 $\frac{1}{4}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	110—130 120	128,533	716,096	45·5		
1862										
31 Mar.	93 $\frac{1}{8}$	60 1	4—6 $\frac{1}{4}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{1}{2}$ 5 $\frac{5}{8}$	130—155 142	143,926	804,272	41·1		

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The *average* of the highest and of the lowest *weekly* prices is here shown in cols. 4, 5, and 6, and not the *absolute* highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns now relate to 649 Unions, &c., comprising a population of 19,812,000 (in 1851), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1860, to—Insane Persons, 31,554; Vagrants, 1,542. The rest of the paupers on that day amounted to 817,800.

Officers was 15,159, of which 5,197 were persons of English, and about 8,000 of Irish origin. English emigrants left these shores at the rate of 58 daily. About two-thirds of the English went to the Australian Colonies*

The emigration to the *Australian Colonies* which had been much reduced as well as the emigration to all parts, exhibits some appearance of revival, while that to the *United States* continues rapidly to decline. In the quarter that ended 21st March emigrants (English, Scotch, Irish, and Foreign) to the Australian Colonies were 4,411 in 1860, 3,227 in 1861, and 6,322 in the present year; to the United States there went in the same periods 15,117, 12,156, and 7,210. The last number forms not more than the sixth or seventh part of the emigration to the same part of the world ten years ago.

PRICES, THE WEATHER, AND PAUPERISM.—The average price of wheat per quarter was 60s. ; it was higher than it had been in any quarter since 1856. In the March quarter of 1860 and 1861 the price was 44s. 5d. and 55s. 1d. Potatoes were not cheap; they were on an average 142s. 6d. per ton. Beef was at the same price as in the same period of last year; mutton was a penny per lb. cheaper.

The mean temperature of the air at Greenwich for the three months was 41°·1 (which was also the temperature of February); it was 1°·6 above the average of 21 years. The mean temperature of each month was above the average; the highest temperature recorded was obtained at Bournemouth, near Poole, where the thermometer reached 70° in March; the lowest was reached Holkham; it was 11°·8, and occurred in March.

It is stated that at Belvoir Castle the land was in excellent condition for farming operations in January and February; but the wet weather at the latter end of March prevented all out-door work. Wheat looked well in favourable situations. Influenza had been prevalent among horses in January and February, and was fatal in many cases. At Cullogen ploughing was completed about the middle of January on many farms; wheat had an early and rapid growth, and looked well. At Harrogate vegetation was very forward.

The Returns of the Poor Law Board bear faithful witness to the distress that unhappily prevails in many districts. The average number of in-door paupers relieved on the last day of each week rose from 118,523 in the March quarter of 1860 to 143,926 in the corresponding quarter of this year; that of out-door paupers from 717,264 to 804,272. The increase which the last returns show was very manifest, though not to an equal degree, in the March quarter of the intermediate year 1861.

STATE OF THE PUBLIC HEALTH.—The total number of *deaths* registered in the quarter was 122,192; it was not so great as in the same quarter of 1860, when the number was 122,617. London returned 18,405 deaths; Lancashire, which has a population less by upwards of 300,000 persons, returned 18,652. If the rate of mortality had been the same in Lancashire that it was in London, the deaths in that county, would have been about 16,000.

The *rate of mortality* was *lowest* in the SOUTH-EASTERN COUNTIES, which include Sussex, Hampshire, Berkshire, and the extra-metropolitan parts of Surrey and Kent; and in the SOUTH-WESTERN, which include Wiltshire, Dorsetshire, Devonshire, Cornwall, and Somersetshire; it was *higher* in the EASTERN and NORTH and SOUTH MIDLAND DIVISIONS; *higher still* in the WEST MIDLAND. The *highest rates of mortality* prevailed in Yorkshire, the Northern Counties, Monmouthshire, and Wales; in London; and in the NORTH-WESTERN DIVISION, which includes Cheshire and Lancashire. The last-mentioned Division is unfavourably distinguished above all the rest.

The rate of mortality in *England and Wales* in the quarter was 2·447 per

* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 4,200. while the birthplace of 2,907 emigrants was not distinguished; in the above statement a proportional number of these has been added to those returned as of English origin.

cent.; the average being 2·489. It ranged in the March quarter of the previous ten years from 2·2 to 2·9.

DEATHS in the Winter Quarters, ended 31st March, 1855-62.—Numbers.

DEATHS, &c.	1862.	Total 1852-61, (10 Years.)	1861.	1860.	1859.	1858.	1857.	1856.	1855.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i>	66,040	606,862	65,155	63,199	62,194	63,652	57,050	53,973	68,224
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly Small Towns and <i>Country Parishes</i> ...	56,152	567,408	56,558	59,418	59,386	62,167	51,615	49,041	66,398
All England	122,192	1,174,270	121,713	122,617	121,580	125,819	108,665	103,014	134,542

AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Winter Quarters, ended 31st March, 1852-62.

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Winter Quarters, 1852-61.	Average Annual Rate of Mortality per Cent. of 10 Winter Quarters, 1852-61.	Annual Rate of Mortality per Cent. in the Winter Quarter, 1862.
		March 31st, 1851.	April 8th, 1861.			
In 125 Districts, and 23 Sub-districts, comprising the <i>Chief Towns</i>	No. 2,149,800	No. 8,247,017	No. 9,806,780	No. 606,862	Per ct. 2·709	Per ct. 2·691
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i>	35,175,115	9,680,592	10,259,444	567,408	2·297	2·209
All England	37,324,915	17,927,609	20,066,224	1,174,270	2·489	2·447

In the district that comprise the *chief towns*, the rate of mortality was 2·691 per cent. against an average of 2·709. In those that consist chiefly of *small towns* and country parishes the rate was 2·209, against an average of 2·297. The country was not only favourably distinguished from town by having a rate of mortality which was lower by five deaths in each thousand of the population; it also appears to have attained a higher degree of salubrity as compared with that which had been experienced in the winters of former years.

The quarter, for which the present return is made, was at least as healthy as the same period in 1861, and more healthy than that of 1860. Taken as a whole, the season was warm, and “the wet,” which is so much the subject of complaint in the local reports, was probably an evil that was not without its wholesome mixture of good. But Lancashire, as has been already mentioned in general terms, has tended to darken the aspect of returns, which viewed in the aggregate are not unfavourable. In the last three corresponding quarters the deaths in that county considerably increased; they were in the first 16,024, in the next 17,412, and in the March quarter of the present year 18,652.

Of twenty-six districts of which *Lancashire* consists, there was in twenty-one an increase of the deaths now returned over those of the March quarter of 1860; and in sixteen an increase over those of the same quarter of 1861. In Leigh the deaths in the three corresponding quarters were successively 273, 274, and 339; in Bury 591, 695, and 801; in Salford 706, 632, and 818; in Oldham 692, 809, and 893; in Haslingden 400, 422, and 491; in Burnley 500, 531, and 603; in Blackburn 727, 850, and 996; in Preston 823, 877, and 887; and in Manchester 1,760, 1,774, and 2,313. In Stockport the deaths in the same periods were 651, 588, and 711.

The registrars in certain districts refer the increased mortality which these figures too plainly reveal, to scarlatina, measles, bronchitis and pneumonia, which had been prevalent; and by some of them an opinion, which there is reason to fear may be too well founded, appears to be entertained that those complaints had found an active ally in the poverty and want which many of the unemployed thousands now suffer in the great seats of manufacture. Facts have been adduced to prove that in instances of great depression of trade, like that which recently occurred in Coventry, the mortality of children is reduced in consequence of the due amount of maternal care being bestowed on them which in more prosperous times is withdrawn by the importunate requisition of factory labour. This is within limits. Nursing in straitened circumstances may be better for children than fulness of good cheer without it; but when hard times are prolonged, and the small store that had been gathered in a day of full work is exhausted, the greatest amount of parental attention will not expel physical decline, sickness, or death itself from the dwelling.

MARRIAGES *Registered in Quarters ended 31st December, 1861-59; and*
 BIRTHS and DEATHS *in Quarters ended 31st March, 1862-60.*

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1861. (Persons.) No.	4 5 6 MARRIAGES in Quarters ended 31st December.		
			'61.	'60.	'59.
			No.	No.	No.
ENGLD. & WALES.... Totals	37,324,915	20,066,224	48,486	50,688	50,496
I. London	78,029	2,803,989	7,328	7,265	7,332
II. South-Eastern	4,065,935	1,847,661	4,272	4,274	4,219
III. South Midland	3,201,290	1,295,597	3,002	3,233	3,235
IV. Eastern	3,214,099	1,142,480	2,988	3,147	3,160
V. South-Western	4,993,660	1,835,714	3,914	4,022	4,060
VI. West Midland	3,865,332	2,436,568	6,087	6,488	6,311
VII. North Midland	3,540,797	1,288,928	2,886	2,952	3,166
VIII. North-Western	2,000,227	2,935,540	7,092	7,969	7,641
IX. Yorkshire	3,654,636	2,015,541	5,174	5,621	5,568
X. Northern	3,492,322	1,151,372	2,780	2,737	2,602
XI. Monmthsh. & Wales	5,218,588	1,312,834	2,963	2,980	3,202

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 31st March.			11 12 13 DEATHS in Quarters ended 31st March.		
	'62.	'61.	'60.	'62.	'61.	'60.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES.... Totals	182,005	173,170	183,180	122,192	121,713	122,617
I. London	25,800	25,407	25,017	18,405	18,965	18,823
II. South-Eastern	15,385	14,924	15,429	9,533	9,429	9,985
III. South Midland	10,980	10,537	11,764	7,003	6,965	7,370
IV. Eastern	9,439	9,300	10,064	6,193	6,225	6,579
V. South-Western	15,345	14,731	15,904	9,692	10,015	10,850
VI. West Midland	22,761	22,088	23,833	14,884	14,611	14,909
VII. North Midland	11,347	10,881	11,875	7,075	7,267	7,540
VIII. North-Western	29,404	26,775	27,491	21,610	20,269	19,078
IX. Yorkshire	18,885	17,659	19,148	12,539	12,846	12,610
X. Northern	11,508	10,402	10,879	7,180	7,128	6,683
XI. Monmthsh. & Wales	11,151	10,466	11,776	8,078	7,993	8,190

REMARKS ON THE WEATHER

DURING THE QUARTER ENDING 31ST MARCH, 1862.

By JAMES GLAISHER, Esq., F.R.S., &c., *Sec. of the British Meteorological Society.*

Till the 6th of *January* the mean temperature of the air was $\frac{1}{2}^{\circ}$ below the average; from the 7th to the 15th was $7\frac{1}{2}^{\circ}$ above; then for the next six days was 8° below. A period of warm weather followed extending to the 6th of *February*; within which some of the days were as much as 13° to 15° in excess, and the average daily excess for the 15 days was 8° . From the 7th of February to the 16th was cold; the daily defect of temperature was $3\frac{1}{2}^{\circ}$. The next six days were in excess to the amount of 8° daily; then from the 24th of February to the 5th of *March* there was a daily deficiency of $5\frac{1}{2}^{\circ}$, followed by a period of nine days whose daily average was 7° in excess; this period was succeeded by another ending the 21st of March, of deficient temperature to the amount of $2\frac{1}{4}^{\circ}$ daily; and from the 21st of March to the end of the quarter there was an excess of temperature to the amount of 6° daily.

Therefore during the whole of the past three months the temperature of the air has been for a few days together cold, and then for a few days together warm, and so on alternately; the former or cold periods have varied from five to nine days, and the warm from seven to nine days, with one of fifteen days. The warm periods have generally been of somewhat longer duration than the cold periods, and have also been generally more in excess of the average than the cold periods have been in defect, so that upon the quarter the temperature has been in excess, and would class as a warm period. I have no recollection of such a succession of hot and cold periods of nearly equal lengths.

The mean high day temperature in January averaged $\frac{3}{4}^{\circ}$, and February $1\frac{3}{4}^{\circ}$ above, whilst in March it was $0^{\circ}\cdot 1$ below their respective averages.

The mean low night temperature in January was 1° nearly, in February $3\frac{1}{4}^{\circ}$, and in March 3° , in excess of their respective averages.

Therefore the days in January and February were warm, and in March of just average temperature; whilst the nights were warm in January, and much more so in both February and March.

The mean temperature of the air was $0^{\circ}\cdot 9$ in excess in January, $2\frac{1}{2}^{\circ}$ in excess in February, and $1^{\circ}\cdot 3$ in March, as compared with the averages of the preceding 21 years, chiefly due to the warm nights in February.

The mean temperature of the dew point was $0^{\circ}\cdot 6$ below its average in January, 2° above in February, and $2^{\circ}\cdot 9$ above in March. The mean for the quarter was nearly $1\frac{1}{2}^{\circ}$ in excess; therefore the amount of water mixed with the air was less in January and greater in February and March.

The mean pressure of the atmosphere in January was $0\cdot 06$ inch below, in February was $0\cdot 12$ inch above, and in March $0\cdot 29$ inch below their respective averages.

The fall of rain in January was 1·9 inch, in February 0·5 inch, and in March 3·7 inches; the total fall for the quarter was 6·1 inches, being about 1¼ inch above the average of the preceding 45 years. The fall in February was nearly the smallest which has occurred in this month since 1815, it having been less on three occasions, viz., 0·04 inch in 1821, 0·4 inch in 1834, and 0·2 inch in 1857. The fall in March has been exceeded twice since 1815, viz., in 1818, when it was 3·8 inches, and again in 1851, when it was 4·1 inches.

The range of the readings of the barometer in January south of latitude 52°, was about 1·1 inch, between 52° and 53° was 1·2 inch, gradually increasing to 1·4 inch at extreme northern stations. In February, stations situated between the latitudes 51° and 52° was 1·2 inch and 1·3 inch; at stations situated north and south of these latitudes it was 1·4 inch to 1·5 inch; and in March it varied from 0·9 inch at southern stations to 1·1 inch at northern stations.

The mean temperature of the air at Greenwich for the three months ending February, constituting the three winter months, was 40°·4, being 2°·6 above the average of the preceding 90 years.

1862. Months.		Temperature of									Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.		
		Air.			Evaporation.		Dew Point.		Air— Daily Range.						Water of the Thames
		Mean.	Diff. from Average of 91 Years.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.					
Jan.	39·0	+2·9	+0·9	37·1	+0·2	34·6	−0·6	9·6	−0·1	39·4	In. ·200	In. −·003	Gr. 2·3	Gr. −0·1	
Feb.	41·1	+2·8	+2·5	39·1	+2·1	36·6	+2·0	9·8	−1·6	43·3	·217	+·014	2·5	+0·1	
Mar.	43·1	+2·2	+1·3	41·5	+2·0	39·5	+2·9	11·6	−3·2	44·4	·242	+·024	2·8	+0·3	
Mean.....	41·1	+2·6	+1·6	39·2	+1·4	36·9	+1·4	10·3	−1·6	42·4	·219	+·012	2·5	+0·1	

1862. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Hori- zontal Move- ment of the Air.	Reading of Thermometer on Grass.				
	Mean.	Diff. from Aver- age of 21 Years.	Mean.	Diff. from Aver- age of 21 Years.	Mean.	Diff. from Aver- age of 21 Years.	Amnt.	Diff. from Aver- age of 46 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
										At or below 30°.	Be- tween 30° and 40°.	Above 40°.		
Jan.	85	— 4	In. 29·705	—·064	Gr. 552	— 2	In. 1·9	—0·1	Miles. 255	18	10	3	13·4	43·1
Feb.	84	— 1	29·905	+·122	553	0	0·5	—1·1	223	7	15	6	17·0	48·0
Mar.	86	+ 4	29·498	+·286	544	— 6	3·7	+2·2	237	8	13	10	14·0	46·0
Mean.....	85	0	29·703	+·076	549	— 3	Sum 6·1	Sum +1·2	Mean 238	Sum 33	Sum 38	Sum 19	Lowest 13·4	Highest 48·0

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

ENGLAND.—Meteorological Table, Quarter ended 31st March, 1862.

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey	29·616	59·0	29·0	30·0	26·2	6·4	43·7	87
Exeter	29·581	60·7	20·3	40·4	34·6	10·5	43·2	86
Ventnor	29·628	58·0	25·0	33·0	26·3	7·0	43·2	77
Barnstaple	29·605	61·4	22·2	39·2	32·4	10·8	43·4	92
Royal Observatory	29·650	63·6	20·4	43·2	35·8	10·4	41·0	85
Royston.....	29·668	63·3	17·5	45·8	37·0	10·7	39·9	90
Lampeter	29·576	61·5	16·0	45·5	39·7	11·3	41·6	89
Norwich	29·633	59·0	21·0	38·0	34·0	9·6	40·6	90
Belvoir Castle ...	29·631	58·3	17·0	41·3	37·3	10·1	39·6	91
Liverpool	29·643	56·6	26·8	29·8	26·3	7·1	42·0	87
Wakefield	29·636	60·0	19·0	41·0	36·5	10·2	40·1	91
Leeds	—	60·0	21·0	39·0	33·3	6·7	38·2	89
Stonyhurst.....	29·580	56·1	19·0	37·1	29·1	8·8	39·8	87
York	29·602	57·5	21·5	36·0	33·2	7·9	39·7	92
North Shields ...	29·590	56·2	18·0	38·2	31·2	7·8	38·6	93
Alnwick	29·614	57·0	18·0	39·0	32·0	9·1	37·6	93

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·6	6	8	9	8	5·9	43	9·0
Exeter	1·8	9	8	7	6	6·4	57	8·5
Ventnor	—	5	9	6	10	—	42	7·3
Barnstaple	1·3	5	12	7	6	4·8	53	8·6
Royal Observatory	0·4	5	7	9	9	1·4	45	6·0
Royston.....	—	6	6	8	9	7·4	64	5·2
Lampeter	0·8	6	9	8	7	7·6	45	10·7
Norwich.....	1·4	—	—	—	—	8·1	43	6·3
Belvoir Castle ...	1·5	7	4	12	8	7·6	50	5·3
Liverpool	1·3	5	7	14	6	8·3	40	5·0
Wakefield	1·5	9	7	6	8	8·0	54	5·8
Leeds	1·4	6	8	8	7	8·5	48	4·4
Stonyhurst.....	0·6	7	9	7	7	8·6	45	10·2
York	—	5	10	7	8	—	—	4·7
North Shields ...	1·7	8	6	8	8	7·5	73	7·2
Alnwick	1·6	5	12	4	9	7·6	57	9·6

Trade of United Kingdom, 1861-60-59.—*Distribution of Exports from, United Kingdom according to the Declared Real Value of the Exports; and the Computed Real Value (Ex-duty) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (<i>excluding Gold and Silver</i>), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	Whole Year.					
	1861.		1860.		1859.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland } Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium } Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries) }	18,649,	5,057,	23,118,	5,042,	19,608,	5,8
	24,663,	21,303,	27,889,	21,217,	20,735,	18,6
	24,979,	15,126,	24,244,	10,879,	22,180,	8,9
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta } Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt }	4,872,	7,896,	4,887,	6,902,	4,610,	5,5
	13,247,	6,306,	15,908,	7,716,	12,519,	6,7
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco }	544,	171,	296,	219,	289,	1
Western Africa	1,515,	878,	1,801,	967,	1,526,	7
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorla Islands	6,	39,	54,	81,	61,	2
Indian Seas, Siam, Java, Sumatra, Philippines; other Islands	1,183,	1,918,	1,151,	2,122,	2,249,	3,1
South Sea Islands	—	115,	—	34,	12,	1
China, including Hong Kong	9,610,	4,891,	9,491,	5,319,	9,112,	4,4
United States of America	49,385,	9,058,	44,728,	21,614,	34,295,	22,6
Mexico and Central America	662,	756,	715,	645,	667,	8
Foreign West Indies and Hayti	4,900,	2,472,	3,578,	2,670,	3,828,	2,5
South America, (Northern,) New Granada, Venezuela, and Ecuador	539,	1,405,	687,	1,209,	585,	1,0
„ (Pacific,) Peru, Bolivia, Chili, and Patagonia..... }	5,718,	2,561,	5,373,	3,086,	3,772,	2,3
„ (Atlantic) Brazil, Uruguay, and Buenos Ayres..... }	4,741,	6,525,	4,238,	7,149,	5,205,	5,3
Whale Fisheries; Grnld., Davis' Straits, Southn. Whale Fishery, & Falkland Islands }	135,	10,	153,	6,	168,	
<i>Total.—Foreign Countries</i>	165,348,	86,487,	168,311,	96,877,	141,421,	89,3
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	26,155,	17,925,	18,467,	19,310,	16,901,	20,5
Austral. Cols.—New South Wales and Victoria	4,945,	8,265,	4,698,	7,808,	4,241,	9,3
„ „ So. Aus., W. Aus., Tasm., and N. Zea. }	1,956,	2,437,	1,772,	1,899,	1,601,	1,8
British North America	8,664,	3,697,	6,826,	3,738,	5,476,	3,6
„ W. Indies with Btsh. Guiana & Honduras	6,106,	2,665,	6,304,	2,557,	5,688,	2,2
Cape and Natal	1,422,	1,987,	1,714,	2,064,	1,600,	50
Brt. W. Co. of Af., Ascension and St. Helena	202,	434,	175,	395,	480,	6
Mauritius	1,914,	552,	1,684,	539,	1,689,	1,9
Channel Islands	639,	666,	697,	656,	197,	3
<i>Total.—British Possessions</i>	52,003,	38,628,	42,337,	38,966,	37,913,	41,0
<i>General Total</i>£	217,351,	125,115,	210,648,	135,843,	179,334,	130,4

IMPORTS.—(United Kingdom.)—Whole Years, 1861-60-59-8-7.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandize Importe into the United Kingdom.*

(Whole Years.) FOREIGN ARTICLES IMPORTED.		(000's omitted.)	1861.	1860.	1859.	1858.	1857.
			£	£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool		38,653,	35,757,	34,568,	30,107,	29,289,
	Wool (Sheep's)..		9,719,	11,031,	9,831,	8,972,	9,682,
	Silk		7,907,	10,324,	10,596,	6,111,	14,229,
	Flax		3,423,	3,837,	3,769,	3,021,	3,525,
	Hemp		1,894,	1,865,	2,363,	1,873,	1,953,
	Indigo		2,977,	2,529,	1,929,	2,292,	2,185,
			64,573,	65,343,	63,056,	52,376,	60,863,
,, ,, <i>Various.</i>	Hides		2,892,	3,296,	3,373,	2,480,	4,474,
	Oils		3,576,	3,923,	3,654,	3,636,	4,025,
	Metals		3,752,	4,228,	3,887,	3,710,	4,017,
	Tallow		3,312,	4,014,	2,933,	3,042,	3,285,
	Timber.....		9,931,	9,206,	8,163,	5,964,	7,564,
			23,463,	24,667,	22,010,	18,832,	23,365,
,, ,, <i>Agrcltl.</i>	Guano		2,022,	1,563,	769,	4,084,	3,613,
	Seeds		3,108,	3,392,	3,042,	2,710,	3,062,
			5,130,	4,955,	3,811,	6,794,	6,675,
TROPICAL, & C., PRODUCE.	Tea		6,851,	6,944,	5,813,	5,207,	4,677,
	Coffee		2,629,	2,543,	1,956,	1,742,	1,720,
	Sugar & Molasses		13,252,	12,811,	12,539,	13,468,	16,407,
	Tobacco		2,195,	1,778,	1,817,	2,531,	2,182,
	Rice		2,127,	1,023,	805,	1,653,	1,959,
	Fruits		1,470,	1,254,	1,599,	1,290,	1,479,
	Wine		3,863,	4,202,	2,781,	2,041,	4,081,
	Spirits		1,734,	1,919,	2,228,	1,250,	2,788,
			34,121,	32,474,	29,538,	29,182,	35,293,
FOOD	Grain and Meal..		34,750,	31,432,	17,894,	19,993,	19,239,
	Provisions		7,780,	6,546,	3,372,	3,139,	4,019,
			42,530,	37,978,	21,266,	23,132,	23,258,
Remainder of Enumerated Articles			3,869,	3,714,	3,379,	3,023,	3,930,
TOTAL ENUMERATED IMPORTS....			173,687,	169,131,	143,060,	133,339,	153,384,
Add for UNENUMERATED IMPORTS (say)			43,422,	42,283,	35,765,	33,335,	38,346,
TOTAL IMPORTS.....			217,109,	211,414,	178,825,	166,674,	191,730,

IMPORTS.—(United Kingdom.)—First Two Months (*January—February*) 1862-61-60-59-58.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandize Imported into the United Kingdom.*

(First Two Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.		1862.	1861.	1860.	1859.	1858.
		£	£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool	1,206,	3,979,	5,338,	3,952,	2,138,
	Wool (Sheep's)..	510,	392,	660,	418,	451,
	Silk	2,034,	1,181,	1,385,	2,313,	688,
	Flax	366,	198,	297,	243,	107,
	Hemp	60,	54,	58,	72,	54,
	Indigo	179,	66,	93,	76,	134,
		4,355,	5,870,	7,831,	7,074,	3,572,
,, , <i>Various.</i>	Hides	182,	124,	299,	140,	127,
	Oils	339,	170,	363,	306,	180,
	Metals	525,	260,	349,	287,	215,
	Tallow	145,	130,	134,	86,	113,
	Timber.....	498,	526,	363,	275,	265,
		1,689,	1,210,	1,508,	1,094,	900,
,, , <i>Agrc'tl.</i>	Guano	54,	151,	134,	88,	221,
	Seeds	242,	228,	317,	326,	207,
		296,	379,	451,	414,	428,
TROPICAL, & C., PRODUCE.	Tea	1,639,	1,110,	1,158,	476,	416,
	Coffee	284,	172,	188,	118,	97,
	Sugar & Molasses	1,153,	1,304,	1,111,	1,097,	904,
	Tobacco	154,	179,	43,	67,	76,
	Rice	46,	128,	87,	24,	149,
	Fruits	82,	173,	100,	80,	60,
	Wine	448,	544,	391,	242,	227,
	Spirits	241,	186,	215,	168,	75,
		4,047,	3,796,	3,293,	2,272,	2,004,
FOOD	Grain and Meal..	5,274,	6,172,	1,709,	1,993,	2,595,
	Provisions	658,	508,	649,	352,	330,
		5,932,	6,680,	2,358,	2,345,	2,925,
Remainder of Enumerated Articles		408,	311,	431,	308,	281,
TOTAL ENUMERATED IMPORTS....		16,727,	18,246,	15,872,	13,507,	10,110,
Add for UNENUMERATED IMPORTS (say)		4,182,	4,561,	3,968,	3,377,	2,527,
TOTAL IMPORTS		20,909,	22,807,	19,840,	16,884,	12,637,

EXPORTS.—(United Kingdom.)—First Three Months, 1862-61-60-59-58.—
Declared Real Value, at Port of Shipment, of Articles of BRITISH and IRISH
Produce and Manufactures Exported from United Kingdom.

(First Three Months) (Unit 000's omitted.) BRITISH PRODUCE, &C., EXPORTED.		1862.	1861.	1860.	1859.	1858.
		£	£	£	£	£
MANFRS.—Textile.	Cotton Manufactures..	7,530,	9,134,	9,389,	9,550,	6,981,
	„ Yarn.....	1,389,	1,908,	2,425,	2,303,	2,144,
	Woollen Manufactures	2,985,	2,876,	3,005,	2,948,	1,941,
	„ Yarn.....	669,	641,	807,	545,	450,
	Silk Manufactures ..	473,	532,	503,	559,	320,
	„ Yarn.....	78,	55,	48,	50,	39,
	Linen Manufactures...	1,088,	1,084,	1,122,	1,177,	970,
	„ Yarn.....	403,	327,	469,	475,	317,
		14,615,	16,557,	17,768,	17,607,	13,162,
	„ Sewed.					
	Apparel	422,	390,	462,	452,	374,
	Haberd. and Millnry	673,	902,	989,	1,085,	755,
		1,095,	1,292,	1,451,	1,537,	1,129,
METALS	Hardware.....	566,	732,	816,	834,	679,
	Machinery	718,	750,	663,	576,	659,
	Iron	2,049,	2,058,	2,395,	2,604,	1,912,
	Copper and Brass.....	596,	474,	676,	664,	645,
	Lead and Tin	586,	350,	573,	584,	389,
	Coals and Culm	782,	658,	618,	608,	564,
		5,297,	5,022,	5,741,	5,870,	4,848,
Ceramic Manufcts.	Earthenware and Glass	357,	385,	480,	442,	370,
Indigenous Mnfrs.	Beer and Ale	402,	348,	645,	572,	452,
	Butter	54,	134,	139,	161,	100,
	Cheese	25,	27,	26,	30,	13,
	Candles	47,	69,	63,	32,	27,
	Salt	58,	78,	61,	39,	40,
	Spirits	58,	79,	60,	56,	51,
	Soda	186,	117,	226,	251,	134,
		830,	852,	1,220,	1,141,	817,
Various Manufcts.	Books	83,	100,	101,	101,	87,
	Furniture	45,	35,	48,	51,	57,
	Leather Manufactures	585,	402,	514,	431,	436,
	Soap	53,	46,	63,	39,	39,
	Plate and Watches	94,	102,	120,	126,	113,
	Stationery.....	57,	143,	181,	185,	166,
		917,	828,	1,027,	933,	898,
Remainder of Enumerated Articles		1,663,	710,	707,	771,	600,
Unenumerated Articles		1,649,	2,023,	2,087,	2,219,	1,686,
TOTAL EXPORTS		26,423,	27,669,	30,481,	30,520,	23,510,

SHIPPING. — FOREIGN TRADE. — (United Kingdom.) — First Three Months, (January—March), 1862-61-60-59.—*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Three Months.)	1862.			1861.		1860.		1859.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage. (000's omitted.)	Vessels.	Tonnage (000's omitted.)
ENTERED:—									
<i>Vessels belonging to—</i>	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	55	20,	363	60	23,	39	15,	39	13,
Sweden	65	16,	246	117	25,	70	17,	60	15,
Norway	314	62,	199	212	43,	182	42,	124	31,
Denmark	309	32,	104	379	39,	328	34,	253	29,
Prussia and Ger. Sts.	361	101,	279	375	108,	311	79,	265	74,
Holland and Belgium	356	47,	132	295	39,	271	40,	273	44,
France	396	35,	89	597	47,	302	27,	584	46,
Spain and Portugal	77	24,	311	102	25,	61	17,	75	18,
Italy & other Eupn. Sts.	81	27,	333	214	61,	117	37,	186	61,
United States	248	221,	891	489	450,	331	326,	197	199,
All other States	2	1,	650	3	1,	7	2,	4	1,
	2,264	586,	258	2,843	861,	2,019	636,	2,060	531,
United Kingdom. & } Depds.....	3,844	1,181,	307	4,054	1,221,	3,712	1,113,	3,698	972,
<i>Totals Entered</i>	6,108	1,767	289	6,897	2,082,	5,731	1,749,	5,758	1,503,
CLEARED:—									
Russia	91	31,	340	81	28,	70	25,	68	24,
Sweden	100	25,	253	116	28,	116	29,	75	23,
Norway	227	51,	224	183	44,	207	52,	91	25,
Denmark	414	44,	106	404	46,	412	46,	269	33,
Prussia and Ger. Sts.	739	153,	207	594	134,	564	133,	428	118,
Holland and Belgium	438	68,	156	307	43,	322	53,	320	55,
France	1,223	127,	103	1,098	110,	697	76,	759	80,
Spain and Portugal	76	24,	316	77	21,	69	19,	73	17,
Italy & other Eupn. Sts.	97	32,	329	259	72,	206	64,	266	83,
United States	260	219,	842	377	357,	340	327,	246	2,240,
All other States	12	6,	500	5	2,	6	2,	5	31,
	3,687	780,	211	3,501	885,	3,009	826,	2,600	729,
United Kingdom. & } Depds.....	5,792	1,640,	283	4,792	1,332,	4,683	1,339,	4,998	1,346,
<i>Totals Cleared</i>	9,479	2,420	255	8,293	2,217,	7,692	2,165	7,598	2,075,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — *Computed Real Value for the First Three Months, (January March), 1862-61-60.*

(000's at unit end omitted.)

(First Three Months.)	1862.		1861.		1860.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—	£	£	£	£	£	£
Australia	1,661,	—	1,612,	—	1,640,	—
So. Amca. and W. } Indies	553,	1,307,	357,	1,579,	269,	1,252,
United States and } Cal.	1,208,	36,	—	5,	507,	142,
	3,422,	1,343,	1,969,	1,584,	2,416,	1,394,
France	65,	249,	886,	206,	35,	1,347,
Hanse Towns, Holl. } & Belg.	344,	591,	138,	114,	5,	648,
Prtgl., Spain, and } Gbrltr.	7,	33,	4,	60,	6,	93,
Mlta., Trky., and } Egypt	2,	5,	1,	3,	1,	1,
China	—	1,	—	—	—	—
West Coast of Africa	38,	2,	12,	—	32,	2,
All other Countries....	77,	7,	14,	8,	1,	4,
Totals Imported	3,955,	2,231,	3,024,	1,975,	2,496,	3,489,
Exported to:—						
France	1,214,	202,	639,	278,	2,340,	94,
Hanse Towns, Holl. } & Belg.	117,	91,	5,	115,	45,	7,
Prtgl., Spain, and } Gbrltr.	486,	7,	224,	4,	126,	—
	1,817,	300,	868,	397,	2,511,	101,
Ind. and China (viâ } Egypt)	353,	2,380,	188,	2,499,	600,	3,423,
Danish West Indies....	28,	4,	—	—	—	—
United States	26,	—	3,063,	18,	1,	1,
South Africa	—	—	6,	—	2,	—
Mauritius.....	—	—	—	2,	—	—
Brazil	5,	10,	5,	37,	71,	30,
All other Countries....	252,	13,	14,	37,	23,	22,
Totals Exported	2,481,	2,707,	4,144,	2,990,	3,208,	3,577,
Excess of Imports	1,474,	—	—	—	—	—
„ Exports	—	476,	1,120,	1,015,	712,	88,

REVENUE.—(UNITED KINGDOM.)—31st MARCH, 1862-61-60-59.

Net Produce in YEARS and QUARTERS ended 31st MARCH, 1862-61-60-59.

[Unit 000's omitted.]

QUARTERS, ended 31st March.	1862.	1861.	1862.		Corresponding Quarters.	
			Less.	More.	1860.	1859.
	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.
Customs	5,724,	5,824,	100,	—	5,551,	5,914,
Excise	5,044,	4,873,	—	171,	4,507,	3,187,
Stamps	2,294,	2,191,	—	103,	2,128,	2,061,
Taxes	355,	314,	—	41,	313,	312,
Post Office	905,	895,	—	10,	915,	830,
	14,322,	14,097,	100,	325,	13,414,	12,304,
Property Tax	4,427,	4,024,	—	403,	6,002,	2,483,
	18,749,	18,121,	100,	728,	19,416,	14,787,
Crown Lands	77,	76,	—	1,	75,	73,
Miscellaneous	780,	339,	—	441,	729,	340,
<i>Totals</i>	19,606,	18,536,	100,	1,170,	20,220,	15,200,
			NET INCR. £1,070,628			

YEARS, ended 31st March.	1862.	1861.	1862.		Corresponding Years.	
			Less.	More.	1860.	1859.
	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.	£ Mins.
Customs	23,674,	23,306,	—	368,	24,461,	24,118,
Excise	18,332,	19,435,	1,103,	—	20,361,	17,902,
Stamps.....	8,591,	8,348,	—	243,	8,043,	8,006,
Taxes	3,160,	3,127,	—	33,	3,232,	3,162,
Post Office	3,510,	3,400,	—	110,	3,310,	3,200,
	57,267,	57,616,	1,103,	754,	59,407,	56,388,
Property Tax	10,365,	10,924,	559,	—	9,596,	6,683,
	67,632,	68,540,	1,662,	754,	69,003,	63,071,
Crown Lands	295,	290,	—	4,	284,	280,
Miscellaneous	1,747,	1,453,	—	294,	1,802,	2,126,
<i>Totals</i>	69,674,	70,283,	1,662,	1,052,	71,089,	65,477,
			NET DECR. £609,195			

REVENUE.—(UNITED KINGDOM).—QUARTER ENDED 31ST MARCH, 1862:—
APPLICATION.

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 31st March, 1862; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st December, 1861, viz.:—	£
Great Britain	—
Ireland	£982,494
	<u>982,494</u>
Income received in the Quarter ended 31st March, 1862, as shown on preceding page	19,606,614
Amount raised by Exchequer Bills issued to replace, in part, the amount of bills paid off out of the Ways and Means Money Grants for the year 1861-62..	1,000,000
Amount raised per Act 23 and 24 Victoria, cap. 109, on account of Fortifications, &c.	220,000
Amount received in the Quarter ended 31st March, 1862, in repayment of Advances for Public Works, &c.	231,564
Saving on former charges for the Civil List	150
	<u>£22,040,822</u>
Balance, being the deficiency on 31st March, 1862, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 30th June, 1862, and for which Exchequer Bills (Deficiency) will be issued in that Quarter.....	1,936,281
	<u>£23,977,103</u>

Paid:—

Amount applied out of the Income for the Quarter ended 31st March, 1862, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 31st December, 1861.....	£
	3,251,250
Amount applied in redemption of Ways and Means Bills issued in the Quarter ended 31st December, 1861	1,000,000
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 31st March, 1862	11,642,818
Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st March, 1862, viz.:—	
Interest of the Permanent Debt	£5,724,419
Terminable Debt	638,374
Interest of Deficiency and Ways and Means Bills ..	5,189
The Civil List	100,896
Other Charges on Consolidated Fund	770,898
Advances for Public Works, &c.	358,085
	<u>7,597,861</u>
Surplus Balance in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 31st March, 1862, viz.:	485,174
	<u>£23,977,103</u>

CORN.—*Gazette Average Prices (ENGLAND AND WALES) First Quarter of 1862.*

[This Table is communicated by H. F. JADIS, ESQ., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1862.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January 4	62 1	36 8	22 2	37 11	40 10	42 3
" 11	61 11	36 9	21 9	35 8	40 11	41 6
" 18	61 4	36 11	22 2	36 8	40 11	41 1
" 25	60 3	36 8	21 10	39 10	40 —	39 7
<i>Average for January ..</i>	61 4	36 9	21 11	37 6	40 8	41 1
February 1	60 2	36 6	21 11	35 —	40 1	40 7
" 8	60 4	36 7	21 11	39 —	40 1	40 1
" 15	59 10	36 5	21 11	39 4	39 8	39 6
" 22	59 6	36 —	22 4	38 —	40 3	39 4
<i>Average for February ..</i>	59 11	36 4	22 —	37 10	40 —	39 10
March 1	59 8	35 9	22 6	36 —	39 3	39 7
" 8	59 2	35 9	22 1	34 6	39 7	39 9
" 15	59 —	35 10	21 11	38 5	39 5	40 1
" 22	59 5	36 —	21 11	36 1	38 11	38 7
" 29	58 11	35 10	21 11	35 —	38 10	40 2
<i>Average for March</i>	59 2	35 10	22 —	36 —	39 2	39 7
<i>Average for the Quarter ..</i>	60 1	36 3	22 —	37 —	39 10	40 1

RAILWAYS.—PRICES, Jan.—March,—and TRAFFIC, Jan.—March, 1862.

Total Capital Ex- pended Mlns.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic first 13 Weeks. (unit 000's omitted.)		Traffic pr. Mile pr. Wk. 13 Weeks.		Dividends per Cent. for Half Years.		
		1st Mch.	1st Feb.	1st Jan.	'62.	'61.	'62.	'61.	'62.	'61.	31 Dec. '61.	30 Jun. '61.	31 Dec. '60.
£					No.	No.	£	£	£	£	s. d.	s. d.	s. d.
44,0	Lond. & N. Westn.	94	92 $\frac{3}{4}$	93 $\frac{1}{2}$	1,062	1,007	964,	1,016,	69	77	47 6	37 6	52 6
34,7	Great Western	70 $\frac{1}{4}$	67 $\frac{1}{2}$	69 $\frac{1}{2}$	964	964	633,	631,	50	50	30 —	22 6	35 —
13,3	Great Northern	114 $\frac{1}{2}$	113 $\frac{1}{2}$	113 $\frac{1}{2}$	330	330	311,	333,	72	77	77 6	37 6	63 9
11,2	Eastern Counties.	56	52	53	499	499	298,	299,	45	46	30 —	16 3	23 9
9,9	Brighton	121	118	113 $\frac{1}{2}$	241	224	171,	170,	54	58	70 —	50 —	70 —
13,9	South-Eastern	83 $\frac{3}{4}$	79 $\frac{1}{2}$	77 $\frac{3}{4}$	306	306	224,	239,	56	60	50 —	41 8	60 —
12,3	South-Western	99 $\frac{1}{2}$	98	93 $\frac{1}{2}$	400	394	195,	197,	37	38	55 —	40 —	52 6
139,3		89	88	87	3,802	3,724	2,796,	2,885,	56	59	51 —	35 1	51 1
21,4	Midland	129 $\frac{1}{4}$	131 $\frac{1}{2}$	130 $\frac{1}{2}$	614	614	464,	490,	58	61	70 —	62 6	70 —
19,1	Lancsh. and York.	106 $\frac{1}{4}$	107 $\frac{1}{4}$	108 $\frac{1}{2}$	395	395	391,	448,	75	87	50 —	45 —	60 —
11,5	Sheffield and Man.	44	44	44 $\frac{7}{8}$	231	231	172,	187,	57	62	12 6	7 6	15 —
23,4	North-Eastern	97 $\frac{3}{4}$	100 $\frac{7}{8}$	101 $\frac{1}{2}$	789	764	426,	462,	41	46	50 —	52 6	57 6
4,5	South Wales	67 $\frac{1}{4}$	69	67	171	171	—	86,	—	38	30 —	27 6	30 —
79,9		89	92	90	2,200	2,175	1,453,	1,673,	50	57	42 —	39 —	46 6
9,0	Caledonian	105 $\frac{1}{4}$	104	103	219	219	195,	190,	68	66	55 —	50 —	55 —
5,2	Gt. S. & Wn. Irind.	105	106	103	329	329	94,	93,	22	21	50 —	50 —	50 —
233,4	<i>Gen. aver.</i>	91	91	90	6,550	6,447	3,138,	4,841,	36	57	48 6	38 7	49 8

Consols.—Money Prices 1st March, 93 $\frac{3}{8}$ to $\frac{1}{2}$,—1st Feb., 92 $\frac{7}{8}$ to 93,—1st Jan., 91 $\frac{1}{2}$.

Exchequer Bills. „ 21s. pm. „ 16s. to 22s. pm. „ 8s. to 11s. pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the FIRST QUARTER (Jan.—March) of 1862.

1 ISSUE DEPARTMENT.					6 COLLATERAL COLUMNS.	
Liabilities.		Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	DATES. (Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1861. Per ann.
29,79	Jan. 1 ...	11,02	3,63	15,14	20,16	7 Nov. 3 p. ct. 1862. 9 Jan. 2½ „
29,86	„ 8 ...	11,02	3,63	15,21	20,35	
30,12	„ 15 ...	11,02	3,63	15,74	20,69	
30,13	„ 22 ...	11,02	3,63	15,48	20,95	
30,03	„ 29 ...	11,02	3,63	15,38	20,47	
29,76	Feb. 5 ...	11,02	3,63	15,12	20,73	
29,87	„ 12 ...	11,02	3,63	15,22	20,53	
29,66	„ 19 ...	11,02	3,63	15,01	20,13	
29,50	„ 26 ...	11,02	3,63	14,85	20,05	
29,47	Mar. 5 ...	11,02	3,63	14,82	20,53	
29,79	„ 12 ...	11,02	3,63	15,14	20,02	
30,32	„ 19 ...	11,02	3,63	15,67	19,87	
30,54	„ 26 ...	11,02	3,63	15,89	20,20	

BANKING DEPARTMENT.

8					9	10	11	12	13	14		15	16	17	18
Liabilities.										Assets.					
Capital and Rest.		Deposits.		Seven Day and other Bills.	DATES. (Wdnsdys.)	Securities.		Reserve.		Totals of Liabi- ties and Assets.					
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.						
Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £					
14,55	3,18	7,35	15,04	,65	Jan. 1	11,56	18,76	9,63	,82	40,77					
14,55	3,23	4,54	18,21	,73	„ 8	12,77	18,16	9,51	,84	41,27					
14,55	3,28	4,58	16,48	,76	„ 15	12,27	17,14	9,43	,82	39,66					
14,55	3,28	5,47	15,37	,75	„ 22	12,27	17,10	9,18	,87	39,42					
14,55	3,29	5,75	14,75	,71	„ 29	11,57	17,03	9,56	,90	39,06					
14,55	3,40	5,79	14,18	,69	Feb. 5	11,30	17,44	9,03	,84	38,61					
14,55	3,41	4,88	15,53	,71	„ 12	11,10	17,81	9,34	,82	39,08					
14,55	3,41	5,40	15,09	,64	„ 19	11,10	17,57	9,53	,89	39,09					
14,55	3,33	5,76	14,94	,69	„ 26	11,21	17,72	9,45	,90	39,28					
14,55	3,66	6,76	13,74	,69	Mar. 5	11,21	18,38	8,94	,85	39,39					
14,55	3,66	7,53	13,76	,65	„ 12	11,21	18,28	9,77	,89	40,15					
14,55	3,66	8,01	13,34	,61	„ 19	11,72	18,14	10,45	,88	40,18					
14,55	3,67	8,41	13,15	,62	„ 26	10,89	18,24	10,34	,92	40,41					

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the FIRST QUARTER (Jan.—March) of 1862; and in SCOTLAND and IRELAND, at the Three Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 4·35.)	Joint Stock Banks. (Fixed Issues, 3·30.)	TOTAL. (Fixed Issues, 7·65.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2·75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6·35.)
1861.	Mlns. £	Mlns. £	Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
Dec. 21	3,22	2,82	6,04							
„ 28	3,19	2,80	5,99							
1862.										
Jan. 4	3,24	2,82	6,06							
„ 11	3,33	2,91	6,24	Jan. 11	1,60	2,69	4,29	2,05	3,12	6,17
„ 18	3,56	2,94	3,30							
„ 25	3,32	2,91	6,23							
Feb. 1	3,27	2,88	6,15							
„ 8	3,25	2,87	6,12	Feb. 8	1,52	2,53	4,05	3,05	3,03	6,08
„ 15	3,22	2,86	6,08							
„ 22	3,19	2,85	6,04							
Mar. 1	3,18	2,84	6,02							
„ 8	3,15	2,85	6,00	Mar. 8	1,43	2,44	3,87	3,01	2,89	5,90
„ 15	3,14	2,87	6,01							
„ 22	3,14	2,89	6,03							
„ 29	3,23	2,94	6,17							

FOREIGN EXCHANGES.—*Quotations as under, LONDON on Paris, Hamburg & Calcutta; —and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Syd- ney.	Stan- dard Silver in bars in Lon- don.
	London on Paris.	Bullion as arbitrated.		Prem. or Dis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agnst. Engd.	For Engd.			Agnst. Engd.	For Engd.						
	3 m. d.				3 m. d.			60 d. s.	60 d. s.	6 m. s.	6 m. s.	30 d. s.	pr. oz.
1862.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
Jan. 11 ..	25·52	par	—	3 p.	13·8	par	—	111	26	24 $\frac{5}{8}$	54 $\frac{1}{2}$	1 p.	61 $\frac{1}{8}$
„ 25 ..	·47	—	—	2 „	·7 $\frac{1}{4}$	—	0·1	113	„	„	„	„	„ $\frac{5}{8}$
Feb. 8 ..	·45	0·3	—	2 p.	·7 $\frac{3}{4}$	0·1	—	115	„	„	„	2 p.	„
„ 22 ..	·42	0·2	—	1 „	·8	—	0·2	113	„	„	„	„	„ $\frac{1}{2}$
Mar. 8 ..	·47	0·1	—	par	·8 $\frac{1}{4}$	—	0·2	114	„	24 $\frac{3}{4}$	„	„	„
„ 22 ..	·55	par	—	„	·8 $\frac{1}{2}$	—	„	113	„	„ $\frac{1}{2}$	„	„	61

JOURNAL OF THE STATISTICAL SOCIETY,

SEPTEMBER, 1862.

On the INCLOSURE COMMISSION, its POWERS, and the PRINCIPLE on which they have been exercised. By JOHN WILLIAM TOTTIE, F.S.S.

[Read before the Statistical Society, 20th May, 1862.]

REFERRING to the "Seventeenth Report of the Inclosure Commissioners for England and Wales," which I have the privilege of laying before you, the statistical matter appears to occupy so small a space, that I feel considerable diffidence in making it the subject of a contribution to the papers of this Society. I endeavour, therefore, in addition to the mere detail of results, to give a general statement of the powers of the Commissioners, with the principle on which these powers have been carried into operation, in order to enable others to form a judgment of the true value of the existing powers, to estimate the worth of their continuance, the necessity for their improvement, or the benefit to be obtained from their extension.

INCLOSURE OF LANDS.

Proceedings under the Acts for the Inclosure, Exchange, and Improvement of Land prior to the Authorizing Act.

In the first instance, application is made by persons interested in the land to be inclosed, representing at least one-third in value of the interests and in the form prescribed by the Commissioners.

On the receipt of the application it is referred to an Assistant Commissioner for inquiry into the expediency of the inclosure, such inquiry being made at a meeting called with fourteen days' notice on the church door of the parish within which the land to be enclosed is situate, and by advertisement. The practice being to hold such meetings at some convenient place within or near such parish.

The Assistant Commissioner reports the result of his inquiries to the Commissioners, upon which, if they see fit, they frame their provisional order, which is deposited in the parish, with notice of their intention to certify in their annual or special report to the

Secretary of State, the expediency of the proposed inclosure upon the terms and conditions in such order expressed.

In case, at a meeting held for the purpose or otherwise, it appears to the satisfaction of the Commissioners that two-thirds in value of the whole interest in the land to be inclosed, assent to the terms of such provisional order, they certify their opinion accordingly in their annual or special report.

With this proviso, that when the land to be inclosed is waste of a manor, or within any manor, to the soil of which the lord of such manor is entitled in right of his manor, the Commissioners do not certify the expediency of the inclosure without the consent of such owner of the soil.

The reports of the Commissioners are laid by the Secretary of State before both Houses of Parliament, and the Authorizing Act passed, usually two in each Session of Parliament.

Proceedings subsequent to the Authorizing Act.

An inclosure having been authorized by the legislature upon the terms of the provisional order, a meeting of the persons interested, of which twenty-one days' notice is given on the church door, and by advertisement, is called by the Commissioners, and held within the district in which the lands to be enclosed are situate, for the purpose of appointing a valuer, and the persons present at the meeting, or the majority in number, and the majority in respect of interest may appoint a valuer. In case the majority in number, and the majority in respect of interest do not agree upon the appointment, then the Commissioners appoint a valuer, such valuer, however appointed, being a person not interested in the inclosure or the agent of any person so interested.

At the meeting for appointing a valuer, or at some other meeting called by the Commissioners for the purpose, the majority of the persons present in number and value may resolve upon instructions to the valuer, not inconsistent with the terms and conditions of the provisional order and of the authorizing act, and may make an agreement with the valuer for his remuneration, which instructions are allowed or disallowed, in whole or in part, or such alterations therein or additions thereto, made by the Commissioners as they think proper, and the Commissioners may allow or disallow the agreement. In case of total disallowance, the Commissioners may frame instructions. A copy of all instructions under the seal of the Commissioners is sent to the valuer, who is required to observe and obey the directions and declarations of the provisional order, acts, and instructions respectively.

Provided, that in case of alteration of the instructions to the valuer by the Commissioners, or of instructions being framed by

them in lieu thereof, such altered or new instructions must be deposited in the district, and approved by the like majority as in the case of original instructions at a meeting convened by the Commissioners with fourteen days' notice.

The agreement with, and instructions to, the valuer, having been allowed by the Commissioners, he is in a position to perform his duties, as in the case of a Commissioner under a Local Inclosure Act.

For which purpose he may be assisted, if required, by an Assistant Commissioner in his decision on the claims made by parties interested in the inclosure—subject to the rehearing of such claims in case of dissatisfaction by the Commissioners, or an Assistant Commissioner, with a further appeal to a court of law.

Boundaries of parishes and manors may be set out by the Commissioners or by an Assistant Commissioner, on the representation of the valuer that they are not sufficiently ascertained, and on inquiry and evidence taken on the ground after due notice, with power for parties dissatisfied with the determination respecting such boundaries, to submit the same to the decision of a jury, or to remove the determination of the Commissioners or Assistant Commissioner into the Court of Queen's Bench.

The valuer is required to draw up a report containing all particulars of all his proceedings and directions in regard to the inclosure, with a map showing by reference numbers or otherwise, all matters relating to such proceedings, capable of being shown upon a map, being the lands to be inclosed, the allotments thereof, roads, watercourses, fences, and lands in respect of which, allotments are set out, which last mentioned lands may be shown by reference to the tithe plan or some other map sanctioned by the Commissioners.

The valuer's report is deposited in the parish in which the land to be enclosed, or some part thereof, is situate, and the Commissioners call a meeting at some convenient place, of which meeting, not less than twenty-one days' notice is given, for hearing objections to such report, by the Commissioners, or an Assistant Commissioner, with power to make inquiries and approve or amend the report as the Commissioners see fit.

The report of the valuer being thus settled, forms the basis of his inclosure award, which when confirmed by the Commissioners is binding and conclusive on all persons whomsoever.

The expenses of inclosures require approval by the Commissioners, but are first submitted to a meeting of the persons interested of which seven days' notice at the least is given.

The Commissioners or Assistant Commissioners have power to summon witnesses and examine them on declaration, under penalty of being deemed guilty of a misdemeanor, and to call for public

documents to be verified on declaration. The Commissioners may exercise the like powers for procuring the attendance of witnesses, and production of documents before a valuer acting in the matter of any inclosure.

The Commissioners, or any Assistant Commissioner, have a discretionary power to award costs upon application being made to them for this purpose.

		Acreage.
Number of inclosure awards confirmed	574	389,188
„ boundary „	82	—

I append to this paper a table of the number of inclosure bills passed annually from the commencement of this century to the present time, with the average price of wheat in each year.

Exchange of Lands.

The Commissioners have valuable powers for the purpose of effecting, by order under their hands and seal, exchanges of lands and incorporeal hereditaments on the application of the parties interested, with the proviso that in all cases of copyholds there be obtained the consent of the lord of the manor, and in the case of lands held in respect of an ecclesiastical benefice the consents of the bishop and patron. The land taken upon every such exchange to ensure to the same uses and subject to the same conditions and incumbrances as the lands given in exchange would have stood limited, or been subject to, in case such order had not been made.

The order is not confirmed until notice has been given by advertisement in three successive weeks of the proposed exchange, and three calendar months have expired from the publication of the last of such advertisements, during which time notice of dissent may be given by any person entitled to any estate in, or to any charge upon, any land included in such proposed exchange.

Powers are also given for the division of intermixed lands, and for the partition of lands held in undivided shares—and for the definition of boundaries of lands held under copyhold, freehold, and leasehold tenures.

Also for the apportionment of certain fixed rents chargeable on land, and of compensation money for the extinction of commonable or other rights paid to a committee under railway or other special Acts.

Number of exchanges confirmed	2,004
Average official cost, 4l.	
Number of divisions confirmed.....	16
„ partitions „	73

Inclosure Acts—Abstract of Proceedings.

Applications.	Prior to Last Report.	In the Present Year.	Total.	Con-firmed.	Other-wise Disposed of.	In Progress.
	No.	No.	No.	No.	No.	No.
Inclosures	908	33	941	574	142	225
Exchanges	2,249	246	2,495	2,004	252	239
Partitions.....	94	16	110	73	18	19
Conversions into regulated pas- ture	2	—	2	2	—	—
Division of intermixed lands	22	2	24	16	2	6
In reference to local Acts	44	1	45	37	7	1
To define lost boundaries	20	1	21	14	4	3
Application of money received under Lands Clauses Conso- lidation or Railway Acts	11	2	13	10	1	2
To apportion fixed rents.....	5	—	5	4	1	—
Total	3,355	301	3,656	2,734	427	495

Acreage of inclosures confirmed	389,188 acres.
„ in progress	192,029 „

The Acts relating to the inclosure and exchange of lands are the following :—

8 and 9 Vict., cap. 118	15 and 16 Vict., cap. 79
9 „ 10 „ 70	17 „ 18 „ 97
10 „ 11 „ 111	20 „ 21 „ 31
11 „ 12 „ 99	22 „ 23 „ 43
12 „ 13 „ 83	

In thus stating the proceedings of the Inclosure Commissioners I should be giving limited information did I not place before you other powers which are vested in them, entailing much responsibility and labour.

Drainage, Public Money—(Great Britain).

The Inclosure Commissioners have authorized the advance* of 4,000,000*l.* of public money, under powers vested in them by several Acts of Parliament, commencing with the 9 and 10 Vict., cap. 101, passed in 1846, enabling advances to the extent of 2,000,000*l.* At

* The following is the clause of the Act defining the *money terms* on which the advances were to be made to the *borrowers* :—

9 and 10 Vict., cap. 101, sect. xxxiv.—“ And be it enacted, that upon the issue “ as aforesaid of any advance by virtue of a certificate under this Act, the land “ mentioned in such certificate shall be charged with the payment to Her Majesty, “ in respect of such advance, of a rent charge after the rate of six pounds ten “ shillings rent for every one hundred pounds of such advance, and so in proportion “ for any lesser amount, and to be payable for the term of twenty-two years, to be “ computed from the 6th day of April or 10th day of October which shall next “ happen after the issue of such advance, such rent charge to be paid by equal “ half-yearly payments on the 6th day of April and the 10th day of October in “ every year, the first of such payments to be made on the second of such days “ which shall happen next after the issue of such advance in respect of which the “ rent charge shall be charged.”

this period, draining to the depth of 4 feet was popularly considered a mode of proceeding so expensive as to be incapable of producing any beneficial result, and the cutting of a drain in clay to be useless, this being considered a stratum which would hold water but from which water would not flow. Both these modes of drainage were sanctioned, and the Act of the 13 and 14 Vict., cap. 31, passed in 1850, enabled the further advance of 2,000,000*l*.

These advances are made subject to a preliminary report by an Assistant Commissioner or engineer, after local inspection, that the works will effect an improvement to the amount of $6\frac{1}{2}$ per cent., at the least, on the money proposed to be expended. On being satisfied that an improvement to this extent may be relied upon as the result of the proposed expenditure, the Commissioners, having first given notice of the application for the advance by advertisement for two successive weeks, in a local paper circulating in the district in which the lands proposed to be improved are situate, and in the "London" or "Edinburgh Gazette," as the case may be, and two calendar months having elapsed from the publication of the last of such advertisements, issue their provisional certificate, to the effect that they will make the advance on being satisfied of the due execution of the work at a reasonable cost.

On receipt of the report of their Assistant Commissioner or engineer of such due execution in part or in whole, and in case of part only, of its being complete in itself, the Commissioners issue their certificate of advance, which operates as a first charge on the land.

The repayments of the advances are received by the Commissioners of Inland Revenue, in half-yearly payments, after the rate of 6*l*. 10*s*. per cent. per annum, commencing from the 6th April or 10th October next after the issue of each certificate of advance, including principal and interest, and terminating at the expiration of twenty-two years.

I should here state that the rule has been, with rare exceptions, to employ gentlemen resident near and acquainted with the localities in which drainage works have been executed, for the purpose of investigating the propriety and efficiency of their execution.

The Public Money Drainage Acts have been amended by the 10 Vict., cap. 11; the 11 and 12 Vict., cap. 119; the 19 Vict. cap. 9; and for the purpose of aiding *Scottish emigration*, by the Act of the 14 and 15 Vict., cap. 91.

The duties under these Acts will of course cease when the whole of the public loan has been expended.

Number of applications, 3,396.	£	s.	d.
Amount authorized *	4,796,096	12	8
Amount charged (31st December, 1861)	3,598,907	-	-

* This figure exceeds the amount authorized by Parliament, by reason of portions of loans applied for and not expended being allowed to other applicants.

Drainage—Scottish Emigration.

	£	s.	d.
Amount authorized	15,544	17	10
„ advanced.....	5,249	11	—
„ written off	10,295	6	10
	15,544	17	10

(Nine applicants.)

Drainage, Private Money.

By the Act of the 12 and 13 Vict., cap. 100, the Inclosure Commissioners are authorized to issue grants of rent-charge, being a first charge on lands for the purpose of repaying with interest, money advanced by the owner of such lands or by other parties for drainage works executed thereon with the sanction of the Commissioners, the powers being in the main similar to those of the Public Money Drainage Acts.

These powers are capable of exercise at any future time.

Number of applications, 155.	£
Amount authorized	344,082
„ charged (31st December, 1861)	236,278

Drainage and Improvement of Lands Companies Acts.

Several Acts have been passed since the Public Money Drainage Act of 1846, empowering companies, with the sanction of the Inclosure Commissioners, to obtain charges upon lands for the purpose of drainage and improvement, the powers of the Commissioners being of the same nature, and exercised in the same manner as those vested in them by the Acts for the drainage of land by public and private loans.

The Commissioners may be called upon to exercise these powers at any time and have exercised them to the following extent:—

Date.	Number of Applicants.	Loans Authorized.			Amount Charged on Lands.		
		£	s.	d.	£	s.	d.
31st December, 1861	982	1,910,922	9	1	1,600,497	2	5
West of England Company	11 and 12 Vict., cap. 142.						
General Land Drainage „	12 „ 13 „						91.
Lands Improvement „	16 „ 17 „						154.
„ „	18 „ 19 „						84.
„ „	22 „ 23 „						82.
Scottish Drainage „	19 „ 20 „						17.
„ „	23 „ 24 „						170.
Land, Loan, and Enfranchisement Company.....	23 „ 24 „						169, 196

Number of Applicants.	Authorized.	Charged.
	£	£
3,396 Public loan	4,796,096	3,598,907
155 Private ,,	344,082	236,278
982 Companies Acts	1,910,922	1,600,497
Total	7,051,100	5,435,682

Tithe Commission.

By the Act of the 14th and 15th years of Her Majesty, cap. 53, (1851) the completion of the proceedings under the Tithe Commutation Acts, is combined with the duties of the Inclosure Commissioners.

At the time of the passing of this Act, the tithes of most of the parishes in England and Wales had been commuted; the powers of the Tithe Commissioners having commenced in 1836, but in consequence of the division of parcels of land subject to tithe rent charges, reapportionments of such charges are and will be continually required, and during the twelve months expiring the 31st day of December, 1861, the official register of letters and documents received in this department numbers 6,825.

Boundaries.

Under these Acts, the Commissioners have powers to set out boundaries of parishes, townships, lands of individual owners, and glebe lands.

The mode of proceeding being by local investigation, after due notice, with power for parties dissatisfied to appeal to the Court of Queen's Bench.

Number of boundary awards made, 170.

Exchange.

Also to exchange glebe lands for other lands in the parish within which the glebe is situate, or any adjoining parish with consent of the ordinary and patron of the benefice.

Number of exchanges made, 791.

There is also power to create an extraordinary charge per acre on hop grounds, and on market gardens in any parish or district of which the tithes have been commuted, wherever lands have been so applied since the period of commutation. And where no such extraordinary charge was created at the time of such commutation.

It is relevant to the subject of this paper that I should state the number of districts in which the tithes have been commuted under the powers of these Acts, to be 12,227, of which 6,778 have been by

agreement, and 5,449 by compulsory award ; in all the latter class of cases the awards have been framed by Assistant Commissioners, acting in the district, and confirmed by the Board, a copy of the award having been previously deposited in the district for inspection.

The Acts relating to the tithe commutation are the following :—

6 and 7 Wm. IV, cap. 71.	5 and 6 Vict., cap. 54.
7 Wm. IV, and 1 Vict., cap. 69.	9 „ 10 „ 73.
1 and 2 Vict., cap. 64.	10 „ 11 „ 104.
2 „ 3 „ 62.	23 „ 24 „ 93.
3 „ 4 „ 15.	

Tithes.	Received prior to 1861.	Received during 1861.	Total Received.	Confirmed prior to 1861.	Con- firmed during 1861.	Total Confirmed.
	No.	No.	No.	No.	No.	No.
Agreements for com- mutation	7,070	—	7,070	6,778	—	6,778
Compulsory awards for commutation	5,646	1	5,647	5,445	4	5,449
Apportionments	11,785	1	11,786	11,777	1	11,778
Applications for altered apportion- ments	2,393	217	2,610	2,088	185	2,273
Applications for ex- change of glebe lands	827	43	870	755	36	791
Application for re- demption of rent charge	261	92	353	249	33	282
Mergers of tithes or rent charges.....	14,470	82	14,552	14,468	82	14,550
Application for bound- ary awards.....	170	2	172	170	—	170
Application for com- mutation of corn rent charges into an ordinary rent charge	—	6	6	—	—	—

Under the six heads last named, the Commissioners may be called upon to exercise their powers at any time ; the powers under the last head are as yet only partially known to the public, the Empowering Act having been passed so lately as the year 1860.

Copyhold Enfranchisement.

By the Act of the 14th and 15th years of Her Majesty, cap. 53, the Copyhold Commission was consolidated with the inclosure com-
mission.

The powers of the Copyhold Commissioners were originated in the year 1841, under the Act of the 4th and 5th years of Her Majesty, cap. 35, and have been extended by several Amendment Acts. Under these Acts the lord of the manor and his copyhold tenant may agree upon the terms of enfranchisement; and the lord or the tenant may compel an enfranchisement, subject to the provisions of the Acts.

It appears from the annexed table of enfranchisements and commutations effected since the commencement of the Commission, that during the first thirteen years of its existence the powers were not extensively called into action, the demand for their exercise has however, steadily increased from that time, which may be partly accounted for by the creation of compulsory powers for enfranchisement under the Amendment Acts of the 15th and 16th years of Her Majesty, cap. 51, and the 21st and 22nd years of Her Majesty, cap. 94. Until, in the year 1861, the number of documents confirmed during the year has arrived at:—

	Voluntary.	Compulsory.	Total.
	No.	No.	No.
	358	428	786
In addition to applications received during the year, and in progress	62	307	369
	420	735	1,155

It is manifest that the execution of these powers will be multiplied and extended over many years.

Under the Universities and College Estates Act, 1858, the Copyhold Commissioners have power to authorize sales, enfranchisements, purchases, exchanges, and mortgages, by these bodies. A power involving much additional responsibility to the Commissioners, and entailing additional labour on the office, the moneys received being paid into the Bank of England to a special account in each instance, and reinvested by the Commissioners, and the proceeds handed over to the parties entitled to the principal.

The Commissioners have authorized during the year ending 31st December, 1861,

Sales	21	} £	41,191
			683
Enfranchisements	4	} £	757
Purchases	15		41,121
		} £	118
Exchange	1 (no money paid)		—
Mortgages	2	} £	1,925
			85,795

These powers are likely to be more extensively called into operation.

The receipts of letters and documents in the Copyhold and Universities Estates' department, have been, during the year 1861, 9,034.

The following Acts relate to this department :—

4 and 5 Vict., cap. 35	} Copyhold Acts.
6 „ 7 „ 23	
7 „ 8 „ 55	
15 „ 16 „ 51	
21 „ 22 „ 94	
21 „ 22 „ 44	Universities and College Estates Act.

Copyhold Enfranchisements and Commutations.

Year.	Number.	Consideration.		
		Payment in Full.	Rent Charges.	Land.
		£	£	A. R. P.
1841.....	1	8	—	—
'42.....	12	594	120	—
'43.....	29	4,815	17	—
'44.....	39	9,572	138	—
'45.....	56	10,651	763	—
1846.....	56	13,162	286	97 3 6
'47.....	52	12,158	474	—
'48.....	25	3,091	56	—
'49.....	30	3,929	144	—
'50.....	37	7,530	88	798 2 2
1851.....	64	22,723	273	—
'52.....	44	16,699	116	313 1 25
'53.....	58	15,299	157	—
'54.....	131	30,732	150	—
'55.....	220	44,874	166	13 1 15
1856.....	231	53,408	7	—
'57.....	303	55,879	50	—
'58.....	204	35,802	3	—
'59.....	371	41,582	378	114 1 26
'60.....	714	107,415	805	— — 32
1861.....	786	74,186	341	41 2 32
Total	3,463	564,107	4,532	1,379 1 18

Drainage and Outfall Districts.

By the Act of the 24th and 25th years of Her Majesty, cap. 133, intituled an Act to amend the law relating to the drainage of land for agricultural purposes, the legislature have imposed considerable additional responsibility upon the Inclosure Commissioners.

The nation is much indebted to the learned gentleman, who has drawn this Act for a most valuable feature in legislative enactments, the classification of the clauses.

Commissions of Sewers.

By this Act the Inclosure Commissioners have power, on petition of the proprietors of one-tenth of the area proposed to be affected, to recommend to Her Majesty through the medium of one of Her Principal Secretaries of State, the issue of Commissions of Sewers for all parts of England, inland as well as maritime, (with a saving clause as to the consent of existing Commissioners of Sewers), and for such purpose, to make local inquiry by an Inspector as to the genuineness of the petition, and the propriety of the boundaries of the area proposed to be drained. The Inspector giving such notice of his meetings to be held in the district for prosecuting his inquiry as the Inclosure Commissioners shall direct. The Commissioners being required to dismiss the petition, in case the proprietors of one-third of the land comprised within the area signify their dissent within a time to be specified.

The legislature have not, in this instance, imposed upon the Inclosure Commissioners the duty of making any preliminary inquiry into the efficiency of the proposed works.

Power to take Land.

The Inclosure Commissioners may also, on petition, issue a provisional order empowering Commissioners of Sewers acting under this Act, to take land under the Lands Clauses Consolidation Act (8 and 9 Vict., cap. 18) and may inquire in the district by their Inspector as to the propriety of acceding to such petition, such order being subject to confirmation by the legislature, and the inquiry being made after such notice as the Inclosure Commissioners shall direct.

Power to Mortgage Rates.

The Inclosure Commissioners may sanction mortgage of rates to be repaid with interest, for a term not exceeding thirty years.

Setting out Boundaries.

Where under the powers of the Act, a watercourse is altered, so as to effect a boundary of any area defined by law, the same is to be reported to the Inclosure Commissioners, who may, by notice in the "London Gazette," define what shall be the boundary.

Elective Drainage Districts.

One-tenth of the proprietors of any area of land, requiring a combined system of drainage, warping, or irrigation may apply to the Commissioners to constitute such land into a separate elective drainage district, with a saving clause as to the consent of existing Commissioners of Sewers, Town Councils, Local Boards of Health,

or Improvement Commissioners. The inquiry being of the same nature, and conducted in the same manner, as in the case of an application for the issue of a Commission of Sewers by Her Majesty.

On the Inclosure Commissioners being satisfied of the propriety of the area, and of the consent of the proprietors of two-thirds thereof, they may issue their provisional order, and publish the same in the "London Gazette," and in some other newspaper circulating in the district, and copies are to be served on such persons and in such manner as the Inclosure Commissioners may require; this order, when confirmed by Parliament, completes the formation of an elective drainage district.

These powers having been created so lately as the last Session of Parliament, have as yet been very partially exercised. They cast great responsibility on the Inclosure Commissioners, but are not likely to entail any additional burthen on the Consolidated Fund.

*Number of Letters and Documents Received in the Year ending
31st December, 1861.*

Inclosure and exchange	12,168
Drainage	10,368
Tithe	6,825
Copyhold and Universities estates	9,034
	<hr/>
Total	38,395
	<hr/>

Gentlemen desirous of more detailed information on the subjects of this paper will find it useful to refer to the works of Mr. Wingrove Cooke on "Inclosure and Exchange," Mr. Shelford on "Tithe Commutations," Mr. Scriven on "Copyhold," and Mr. Shelford on "the Law of Copyhold Enfranchisement."

The powers which have been vested by the legislature in the hands of the Inclosure Commissioners, I believe to be essentially facilitating powers,

True it is, that the Commission resides in the metropolis, from which centre issue all notices and directions within its authority. Let it not, therefore, be supposed that the powers of the Commissioners militate against the freedom of local action, or tend to limit the capacity of the poorest applicant in his endeavour to obtain the acknowledgment of his existing rights.

The real state of the case is far otherwise, as may be seen by reference to the requirements of the Inclosure Acts. That the investigation of the propriety of an application for an inclosure be held in the district from which the application emanates.

That the application be signed by persons representing one-third of the total interest.

That the provisional order, based on such investigation, be assented to by two-thirds of the total interest.

That the appointment of the valuer be made by a majority in number and value, in respect of interest of parties present at a meeting duly convened and held in the district for such purpose. The Commissioners having the power to appoint only in the case of a disagreement between the majority in number and value.

That the instructions to the valuer be approved by the parties interested under the same conditions as his appointment.

That the valuer's report and map be deposited, and the meeting for hearing objections thereto be held in the district.

And that all estimates of expenses be submitted to the parties interested.

The investigation of the propriety of the inclosure, and the examination of the valuer's report being required to be made by an officer of the Commission in the district, afford two opportunities for every individual interested to be heard in an open court, most conveniently situated, in the presence of his neighbours, having like interests with himself, under the presidency, in most cases, of a gentleman eminent for his legal knowledge, and in all, of one having special knowledge of the subjects of inquiry.

In all cases of exchange the Commissioners are careful to satisfy themselves that the valuer is competent, and not under the influence of either of the exchanging parties.

In deciding upon applications for drainage loans, the practice of the office is to obtain the opinion of inspectors acquainted with the district in which the loan is to be expended.

And every facility which can be given without exceeding the powers of the Acts is accorded to every applicant.

I endeavour to show as clearly as possible the system pursued by the Commissioners in the execution of their powers, for the purpose of explaining the cause of the great popularity the office has attained with those who have had occasion to apply for the exercise of its powers. This I do, not in the spirit of advocacy, for those require no advocate who are continually called upon to undertake additional labour and responsibility, but I do it in the sincere hope that my hearers will appreciate the principles upon which central powers can be authorized and exercised, and will perceive that the principle of centralization may be applied in a state without interfering with the free action of the subject, and that a central office may be so constituted and conducted as to avoid offending local views, and the feelings of individuals.

If my very humble effort produces any such impression, I shall have placed on the pages of your proceedings, the record of a

system of administration which may benefit my fellow-creatures, whether they be members of this nation, of her numerous and distant dependencies, or of other nations, with whom we may be in friendly and beneficial intercourse, for I shall have shown one mode by which the subjects of all nations may be led to look upon that very necessary institution "a Government," not as an oppressor and a foe, but as a benefactor and a friend.

Estimates for Civil Services, 1862-3.

	£
No. 24.—The estimate for the expenses of the commission for the current year, amounts to	19,800
The estimated repayments to the Exchequer on this account being at the least	3,700
Will reduce the probable charge upon the Exchequer to	16,100
„ 25.—There is also an estimate for inclosure and drainage imprest expenses, amounting to	12,090

This charge upon the Exchequer is balanced by the annual repayments.

The repayments under this account entail great labour on the accountant's department, as they comprise the repayments of advances made on account of every application for an inclosure, an exchange, or a drainage advance.

The repayments under No. 24, include certain items of profit consisting of fees for inspections of official documents, and the difference between the payments to the officers of the establishment for extracts and tracings, and the amount charged to the public for such work, the profit of the last year amounts to 1,666*l.* 12*s.* 9*d.* This item has steadily increased from the sum of 392*l.* 18*s.* 9*d.*, in the year 1853, to its present amount, by reason of the public becoming better acquainted with the value of such documents, as the tithe apportionments and plans, for general reference in all dealings with real property, for the purpose of identity. The demands for such reference will multiply, I have no doubt, faster far than heretofore. The documents we possess do not comprise the entire area of the country, but it is not the object of this paper to enter at length into the subject of national survey, or of a doomsday book of the reign of Queen Victoria. It is, however, a subject of great satisfaction to me to be able to inform you that I have the promise of a paper from my friend Colonel Leach, on the subject of an entire and facile reference for the purposes of identity, which, I feel sure, will be more interesting, because more valuable, than anything which I can offer on these subjects.

Inclosure Acts passed, and Average Price of Wheat from 1800 to 1861.

Years.	Number of Inclosure Bills passed.	Average Price of Wheat.		Years.	Number of Inclosure Bills passed.	Average Price of Wheat.	
		s.	d.			s.	d.
1800	63	110	5	1830	21	64	3
'01	80	115	11	'31	9	66	4
'02	122	67	9	'32	12	58	8
'03	96	57	1	'33	15	52	11
'04	104	60	5	'34	16	46	2
1805	52	87	1	1835	4	39	4
'06	71	76	9	'36	10	48	6
'07	76	73	1	'37	10	55	10
'08	91	78	11	'38	19	64	7
'09	92	94	5	'39	20	70	8
	847	82	2		136	56	9
1810	122	103	3	1840	14	66	4
'11	107	92	5	'41	22	64	4
'12	133	122	8	'42	11	57	3
'13	119	106	6	'43	11	50	1
'14	120	72	1	'44	8	51	3
1815	81	63	8	1845	4	50	10
'16	47	76	2	'46	22	54	8
'17	34	94	—	'47	21	69	9
'18	46	83	8	'48	61	50	6
'19	44	72	3	'49	40	44	3
	853	88	8		214	55	11
1820	40	65	10	1850	45	40	3
'21	25	54	5	'51	37	38	6
'22	13	43	3	'52	45	40	9
'23	9	51	9	'53	34	53	3
'24	12	62	—	'54	31	72	5
1825	24	66	6	1855	46	74	8
'26	20	56	11	'56	57	69	2
'27	22	56	9	'57	43	56	4
'28	16	60	5	'58	38	44	2
'29	24	66	3	'59	39	43	9
	205	58	5		415	53	4
				1860	25	53	3
				'61	50	55	4

Note.—The General Inclosure Act was passed in 1845, and the Corn Laws were repealed in 1846.

On the PROGRESS and ECONOMICAL BEARINGS of NATIONAL DEBTS in this and other Countries. By LEONE LEVI, ESQ., F.S.A., F.S.S., of Lincoln's Inn, Barrister-at-Law, Doctor of Economical and Political Sciences of the University of Tübingen, and Professor of the Principles and Practice of Commerce in King's College, London.

[Read before the Statistical Society, 18th February, 1862.]

IN the survey of the financial condition of the United Kingdom which I had the honour to offer to the Society in former years, the important fact was deduced, that although taxes for ordinary purposes and of a limited amount are borne in this country with remarkable good-will and patience, whenever an extraordinary effort has been required, whether to meet the expenses of a war, to provide for an indemnity for the liberation of the slaves, or to meet the distress caused by the potato failure, a loan has invariably become necessary. And the reason is clear. When the nation has, by lengthened experience, discovered what portion of income must be annually set aside for State purposes, each individual's budget of income and expenditure is settled accordingly. When, however, a sudden emergency arises for which a much larger amount must at once be provided, the State has no alternative but to resort to temporary expedients for the purpose, till at least the nation has had time to accommodate itself to the additional sacrifices. Hence it is that loans are contracted. For the time they are indispensable, and no objection could be found to this method, provided it be clearly understood that such an arrangement is temporary and not permanent; and that in no case it is intended to allow the nation to shift the burden of their own acts to generations following. There is certainly something ennobling in the fact, that whenever national interests, national honour, or national independence are endangered, all regards for money immediately cease, and with no grudging thought, millions and millions are voted where thousands would on other occasions be rigidly economized. But the charm of such an act is completely lost, if the patriotic and liberal voters dispose of money which they and their constituents never mean to pay, or when at most they intend only to pay the annual interest. It is all important that the same individuals who order or sanction an excessive expenditure, should feel it incumbent on them to provide for it; that those for whose immediate or future benefit any great

expenditure, is undertaken, should themselves curtail their own comforts, and make sacrifices, adequate to the urgency of the national call. It is, indeed, the chief evil of National Debts, that through their fictitious and illusory offers, a nation is induced to spend hundreds of millions without incurring even the risk of being once asked for payment. It thus encourages a wasteful expenditure, affords a stimulus to many unnecessary wars, and produces a total disregard of economical laws. "The expenses of a war," said Mr. Gladstone, "are the moral check which it has pleased the Almighty to impose upon the ambition and the lust of conquest that are inherent in so many nations. There is pomp and circumstance, there is glory and excitement about war, which, notwithstanding the miseries it entails, invests it with charms in the eyes of the community, and tends to blind men to those evils to a fearful and dangerous degree. The necessity of meeting from year to year the expenditure which it entails, is a salutary and wholesome check, making them feel what they are about, and making them measure the cost of the benefit upon which they may calculate."

But experience teaches us that the expenditure caused by wars is frequently so excessive, as to preclude the nation not only from paying immediately the immense burdens which it imposes, but even from entertaining any hope of meeting them within a reasonable time. Unless, therefore, some expedient were found to obtain the requisite amount without undertaking an immediate or early repayment, no alternative would be left, but either to abandon war altogether as a means for asserting and defending national rights (and far better would it be if it were so), or to have recourse to an immensurate amount of immediate taxation which would be sure to impoverish the nation and exhaust the means for further accumulation. We must allow the full force of this reasoning from necessity, yet it is highly important to remember that just in proportion as sacrifices are made promptly and liberally, so we avoid mortgaging our future industries and entangling national finances for years to come. Had Mr. Pitt been enabled to draw more liberally upon the nation during the many years in which that lengthened conflict with France lasted, the capital of the debt would never have reached the extreme amount of 860,000,000*l.*, and the yearly expenditure during those disastrous years of war would not have been aggravated by a large portion at least of the interest of the debt.

But it is suggested that where a dispensation of Providence, such as famine, pestilence, or war, imposes upon us sacrifices far exceeding what we can bear, we are fully justified in apportioning them between ourselves and our successors. In the preservation of the empire they are, no doubt, as much interested as we. Heirs of so precious a heritage, will they grudge to bear a portion of its burden?

They may not. They will not. But they may have burden enough of their own from eventualities happening to themselves, and why shall we saddle them with our own also? And is war in all cases an unavoidable dispensation of Providence,—an evil which cannot be prevented? Is it not often a calamity of our own seeking? Whatever difference of opinion may exist on questions of national policy, it is well that the majority should, after an open discussion, bind the minority. But however just the principle, where the minority is well represented, it is widely different as respects unrepresented future generations. Whether, therefore, we consider the question in a financial or a moral aspect, from an economical or legislative view, we shall find it most expedient and most equitable to wipe off, as soon as possible, the debts which necessity may compel us to contract, and as a careful and prudent parent allow our children to enter into their inheritance free and unincumbered. How different has been the practice of Britain in this respect. Each succeeding reign seems to have taken a pride, or absolute pleasure, in leaving behind a more gigantic tower of obligations. Mark the following figures,—how rapid they rise.

(A.)—*Total Amount of Debt Funded and Unfunded.*

	£
On the accession of William and Mary, 1691	3,130,000
„ William III..... '95	8,436,846
„ Anne 1702	12,767,225
On the accession of George I 1714	36,175,460
„ „ II '27	52,523,923
„ „ III '60	102,014,018
On the accession of George IV 1820	834,900,960
„ William IV..... '30	784,803,997
„ Victoria '37	787,529,114

But nothing could better show the fearful consequences of a policy of aggression or intervention than the large amount of obligations accrued to this country by three wars only, over and above the heavy taxation imposed on the people themselves during the whole of these periods.

(B.)—*Amount of Debt added.*

	£
The Seven Years' war 1756-63	60,000,000
„ American war '75-83	100,000,000
„ French and American war '93-1815	600,000,000

We shall not enter into any critical examination of the ruinous rates at which these obligations were contracted, especially during the period from 1793-1815. Suffice it to say, that at the commencement of this period the debt, amounted to 229,614,446*l.*, and that in 1816, or twenty-three years after, it was 816,311,939*l.*, showing an addi-

tion to the amount of stock created of 586,697,493*l.* On an average 173*l.* stock was created for every 100*l.* money obtained, so that the country really received only 339,131,500*l.*, or 247,565,993*l.* less than it engaged to pay at the ordinary rate of interest.

Fortunately for a long time after that great struggle, with the exception of the short Russian war, we have had a lengthened period of peace, during the greater part of which the annual income has been generally sufficient to defray the national expenditure. We have, it is true, contracted a loan of 20,000,000*l.* for compensation to slave owners, a loan of 8,000,000*l.* for the Irish distress, and a loan of 16,000,000*l.* for the war with Russia, besides the sum raised by Exchequer bonds. Yet, with the assistance of the sinking fund, by which there was purchased as much as 39,000,000*l.* stock, and of donations and bequests, amounting to nigh 800,000*l.* we find the national debt now amounting to less than it was in 1820. The sums were as follows :—

(C.)—*Total of Funded and Unfunded Debt.*

Years.	£
1820	834,900,960
'30	784,803,997
'40	788,644,401
'50	787,029,162
'61 (31st March)	801,808,609*

But the very great improvement in the economical condition of the people in this country renders the burden of the national debt much lighter than even the reduced sum is likely to indicate. Following the plan pursued in the papers on the revenue and expenditure, we shall now compare the debt at different periods during the present century with the population, wealth, and income of the country. First as compared with population—

(D.)—*British National Debt and Population.*

Years.	Population.	Total Amount of Funded and Unfunded Debt.	Amount per Head.	
		£	£	s.
1801	16,000,000	517,511,871	32	10
'11	18,000,000	678,200,436	37	10
'21	21,000,000	827,984,498	39	10
1831	24,000,000	782,716,684	32	10
'41	27,000,000	792,209,685	29	10
'51	27,500,000	782,869,382	28	10
'61	29,000,000	801,808,609	27	10

* This sum is exclusive of the debt of British India, which has in late years immensely augmented. The amount was in India (30th April, 1860) 86,258,521*l.*; in England (31st December, 1861) 36,000,277*l.*; total 126,258,798*l.*

As compared with the estimated wealth of the people the capital of the debt stood as follows:—

(E.)—*National Debt and National Wealth.*

Years.	Estimated Wealth.	Total Funded and Unfunded Debt.	Percentage.
	£	£	
1801	2,000,000,000	517,511,871	26
'41	4,000,000,000	792,209,685	29
'61	6,000,000,000	801,808,609	13½

If we now take the annual charge on the national debt and compare it with the population, national expenditure, and estimated income of the people, we have the following facts:—

(F.)—*As Compared with Population—*

Years.	Population.	Interest of Debt.	Amount per Head.
		£	£ s.
1801	16,000,000	19,819,839	1 5
'11	18,000,000	15,484,765	— 17
'21	21,000,000	31,105,319	1 9
1831	24,000,000	28,329,986	1 3
'41	27,000,000	29,462,030	1 1
'51	27,500,000	27,907,068	1 —
'61	29,000,000	26,176,275	— 17

(G.)—*As Compared with the National Expenditure:—*

Years.	National Expenditure.	Interest of Debt.	Percentage.
	£	£	
1801	61,000,000	19,819,839	32
'11	84,000,000	15,484,765	18
'21	56,000,000	31,105,319	55
1831	46,000,000	28,329,986	60
'41	53,000,000	29,462,030	54
'51	49,000,000	27,907,068	57
'61	66,000,000	26,176,275	36

(H.)—*And as Compared with the Estimated Income:—*

Years.	Estimated Income.	Interest of Debt.	Percentage.
	£	£	
1801	230,000,000	20,000,000	8¾
'41	450,000,000	29,500,000	6
'61	600,000,000	26,000,000	4½

(I.)—*As Compared with other Countries, our Debt stand as follows:—*

British and Foreign.	National Debts.	Population.	Per Head.
	£		£ s.
Great Britain	800,000,000	29,000,000	17 11
Netherlands	90,000,000	3,500,000	25 14
France	380,000,000	39,500,000	9 12
Spain	108,000,000	14,500,000	7 8
Portugal	28,000,000	4,000,000	7 —
Austria	240,000,000	35,000,000	6 17
Denmark	12,000,000	2,500,000	4 16
Prussia	36,000,000	18,000,000	2 —
Russia	231,000,000	75,000,000	3 11
Sweden	1,700,000	3,700,000	} 1 9
Norway	1,500,000	1,500,000	

Gratifying as it is to find that the gigantic sum of 800,000,000*l.* debt is really becoming less and less burdensome to the population of this country, in consequence of its advance in number and prosperity, it is impossible not to feel considerable disappointment in finding that, notwithstanding the large expectations entertained at different times of paying off the national debt—the many schemes started for the purpose, and the anxiety so often expressed to have the enormous sum, if not totally extinguished at least sensibly diminished—the bulk of the debt remains intact, with no immediate hope of great curtailment. Whatever may be said as to the relative advantages of the plans proposed, it is quite clear that the resolution of 1829, to devote to the reduction of the national debt such an annual sum as shall appear to be the actual surplus revenue of the United Kingdom beyond the actual annual expenditure, has failed to fulfil the great object it had in view. The years of surplus have been but few and far between. It has been a mere accident that the Chancellor of the Exchequer has ever found himself so fortunate; and when it so happened, the pressure of bad taxes has been such, that the doors of the Treasury have been soon besieged by claimants for immediate relief. In 1819 it was attempted to maintain a sinking fund out of a fixed surplus of 5,000,000*l.* per annum, but it is quite clear that it would be idle to pass a law to maintain such or any surplus for years to come; first, because we know not what a day may bring forth—what wars or calamities may befall the nation; and secondly, because before such a surplus can be kept up the system of taxation must be perfected, by removing all noxious taxes, and equalizing the burden of taxation over all classes.

Supposing we are advancing towards that great desideratum, the best method for making an effective reduction of the debt would seem to be, to fix upon the percentage of national income to be devoted to

State purposes, and to maintain that amount of taxation in relation to the increase of that income, whatever be the savings which may be effected in the expenditure. Thus, in my paper on the distribution and productiveness of taxes, I have shown that the taxation of the country from 1800 to 1810 amounted to nigh 25 per cent. of the estimated income; that in 1841 it was reduced to 12 per cent., and in 1859 to 10 per cent. Supposing 12 per cent. of the income to be the basis of the public revenue; should the national resources continue to increase, we should have a revenue proportionally expanding so as to leave annually a greater amount of surplus to pay off the national debt; and should prosperity fail in any year we should not be called by any fictitious regulation to set aside anything. But a radical objection to this plan is,—first, that we have no absolute data for ascertaining the wealth of the country, and second, that we cannot calculate in maintaining a greater amount of taxes than are required for actual wants. The people will always try to relieve themselves from any unnecessary burden. There will always be a party advocating the enjoyment of present mercies, no matter how their grandchildren may fare at future times. And thus the surpluses gradually be reduced, and the debt will remain just as it was.

So it was with the sinking fund, upon which so much was built, and so many golden dreams indulged in. We need not stop in exposing its fallacies. It is quite evident, that if we have a surplus it is infinitely better to pay off at once a portion of the debt than to allow the money to grow in our own hands. The temptation must always be too great for the most ascetic of Chancellors of the Exchequer. Fancy, keeping millions and millions untouched whilst loud cries of dear bread and high taxes threaten the tranquillity of the State; it would be a moral impossibility. What is wanted is, to pass a law which shall render it obligatory on the nation to complete the great work; a law which shall not leave it optional on any year to return to a state of unconcern for this great public duty. And for this purpose the best is undoubtedly a conversion of all the debt from perpetual into terminable annuities of one hundred years, a plan which offers scarcely any inconvenience either to the nation or to the fundholders, a perpetuity of 1*l.* is now worth 33 $\frac{1}{3}$ *l.*, and an annuity for one hundred years 31.599*l.* As to the fundholders, inasmuch as if we would convert 800,000,000*l.* of 3 per cent. into one hundred years' annuities, we should have to give additional stock for the difference, amounting in all to 843,900,000*l.*, upon which the fundholders would continue to receive their 3 per cent. The increase of the stock would be about 5*l.* 5*s.* per cent., so that every possessor of 100*l.* consols, yielding him 3*l.* per annum, would find himself put in possession of 105*l.* 10*s.*, yielding him 3*l.* 3*s.* 4*d.*. As the income of the fundholders would somewhat increase, they would

have no reason to object; but how would it stand with the nation? The interest which the nation should have to pay upon the additional stock created would be 25,317,000*l.* instead of 24,000,000*l.*, besides the present terminable annuities. Thus, by an additional annual payment of 1,300,000*l.* the whole debt would be extinguishable in one hundred years.

Corporate and public bodies, trustees, and those who wish to make permanent provisions for any purpose whatever, may say, that a present addition, with a view to an ultimate extinction, is scarcely as convenient for their special purpose as a perpetuity; but they would soon learn to look for other securities for their investments. Are there not now many kinds of property, quite as safe and lucrative as the funds? The joint stock banks and savings' banks are open. So are debentures and railway stock. And if it be necessary for certain kinds of investments to have Parliamentary securities, surely there would be no difficulty in passing an Act, declaring some other kinds of property to be Parliamentary securities.

Should a sober consideration of the mode of paying off or reducing the national debt be considered an utopia? Should we be satisfied with the negative proposition that it does not prove practically burdensome? Is it satisfactory to have to provide, year after year, 27,000,000*l.*, nearly the half of the public revenue, in the fruitless object of keeping ever fresh the memory of past delinquencies? Would it not be worthy of a great nation like this, universally renowned for her boundless wealth, to inaugurate some bold measures upon this momentous question? What elasticity would we introduce in the finances of the Empire! How easy would it be to provide for the other wants of the State! The most sweeping reforms in the system of taxation could then be unhesitatingly introduced, and we would have plenty to spare for all kinds of objects, educational, religious, sanitary, and philanthropic. Glorious issue. Would that it were within our reach! But we are not only met by the cry of impossibility, but by illusions, prejudices, and absolute errors. It is said, for instance, that the national debt is beneficial, as it absorbs the surplus capital of the country. Is there any such surplus of unemployed capital? Are there not many new fields of industry which demand investments greater than can be provided for? Never were the channels of investment more open and promising than they are at present. Agriculture, manufactures, commerce, shipping, all promise the most profitable returns. But the most erroneous argument is, that money lent to and spent by the State is really not lost. With dividends so safe and sure at the Bank, what is the difference between a Government security and a bill of exchange? It is the same so far as the produce is concerned, but as regards the capital itself, it is widely different. And the difference is simply this, that

whilst money lent to private individuals is used for fruitful purposes, and employed for the further production of wealth, money lent to the State is literally lost, in so far, at least, as it is sent out for subsidies to other countries,—as it is spent in powder and shot,—as it is sunk in useless earthen works, or other purposes of war, whether at home or in a foreign State. Money so spent is abstracted from national wealth. It no longer exists. It is lost to the nation. Fortunately, the condition of public credit in this country has always been so good that the public creditor can scarcely admit that the property, apparently so sure, has in reality dwindled down to nothing. The British funds have always maintained their value. They can be depended upon. Except on such occasions as the Rebellion, the American War, and in the very height of the French War, the value of the 3 per cent. Consols has always been high. Observe the list of prices herein appended for the last thirty years. How steadily they have remained. But how different has been the course of foreign securities. What oscillations they have undergone. How often have capitalists sold out their property in such funds to invest it in the British.

And who can tell what may happen? Every nation of the world seems falling deeper and deeper into the vortex of financial difficulties. Money considerations seem to have fallen completely below national thought. Let glory or vanity suggest any enterprise, however useless or extravagant, and money is sure to be found. It is indeed lamentable to contemplate the fearful rate at which the national debts of many countries have augmented within the last few years. Peace or war seems to make no difference. Without any regard to reduce their expenditure to the level of their revenue, they have proceeded with culpable recklessness to add year after year millions and millions to their permanent indebtedness. What was once used to be considered as an expedient, resorted to only at time of extreme necessity, is now becoming a normal condition, a natural method of replenishing the public purse. The following review of the debts of the principal countries is indeed far from reassuring. We shall commence with our nearest neighbour.

France.

In the remarkable episode of French finance we have recently witnessed, M. Fould detailed the state of things in the following explicit terms in his letter to the Emperor:—"In studying the financial question it is easy to foresee that unless there is a change of system, we shall soon find ourselves in the most serious embarrassment. The eight years that have elapsed between 1851 and 1858 opened 2,400,000,000 f. (96,000,000*l.*) of extraordinary credits. If we add to this amount 400,000,000 f. (16,000,000*l.*)

“ for the last three years 1859, 1860, 1861, it will be seen how the
“ public debt and the deficit in the Treasury have increased. To
“ satisfy these outlays recourse was had to credit in every shape and
“ with the consent of the public authorities, the resources of special
“ establishments under the direction of the State, have been turned
“ into account. The loans in Rentes negotiated in 1854, 1855, and
“ 1859, amount to no less than two milliards (80,000,000*l.*). On
“ the renewal of the bank’s privilege, the Treasury absorbed an aug-
“ mentation of capital of 100,000,000 f. (4,000,000*l.*) imposed upon
“ that establishment. The army dotation fund which had received
“ 135,000,000 f., (5,400,000*l.*) had all its funds absorbed by the
“ Treasury, which gave it bills on the *Grand-livre* instead. Finally,
“ recourse was had to a new species of loan called obligations tren-
“ tenaires of which this year, 132,000,000f. (5,280,000*l.*) were
“ issued.” The result of this timely warning was that the Emperor,
deemed it necessary to renounce the right of granting extraordinary
credits, and a law has been made accordingly; but has not the
same power, who renounced such sovereign prerogative power also
to resume it? The early history of the public debt of France well
deserves to be carefully studied.

As early as the reign of Louis XIV, the debt amounted to
3,000,000,000 f. or 120,000,000*l.* A national bankruptcy was then
fully anticipated, and St. Simon did not scruple to make a formal
proposal to that effect, though he was not seconded by the Prince
Regent. The interest was, however, reduced to 4 per cent., and a
commission was instituted to inquire into the state of the debts, and
into the claims of the creditors. After this epoch, the celebrated
Law deluded the government and the public with his schemes for
the creation of paper money and banking which put the finances of
France in a perfect chaos. In 1721, by a series of measures both
violent and arbitrary, the debt was reduced by half. After this again,
the debt rose considerably; and in 1764 the Comptroller General-de-
Laverdy, so reduced the capital of the debt as to cause a new
bankruptcy. In 1784 a sinking fund was established, but it was
soon after suppressed by De Brienne. During the convention and
the revolutionary periods, the famous assignats and all kinds of
government papers were issued of fabulous amounts and utterly
worthless. But when in 1798 Napoleon introduced a proper system
of finances, he did not recognize the debt incurred during the
Revolution. All perpetual and life annuities, old and new, were
changed for two-thirds of the amount in notes called *Debté publique*
mobilisée, and one-third was entered in the *Grand-livre* under the
title of *Tiér*s consolidée. The two-thirds exchangeable only in
national property soon lost all value, and the third became the
origin of the present national debt of France.

Within the last ten years since the accession of the present Emperor, whose motto was to be “L’Empirè c’est la paix,” the national debt of France has increased from 200,000,000*l.* to 360,000,000*l.*, as follows:—

(K.)—*Progress of French Debt.*

	Fixed and Floating. £
1850.....	201,000,000
’51-53	240,000,000
’54-55	274,000,000
’56.....	337,000,000
’57.....	352,000,000
’58.....	376,000,000
’59.....	372,000,000
’60.....	380,000,000

Previous to the recent conversion, the French funds consisted of 154,000,000*l.*, $4\frac{1}{2}$ per cent.; 2,000,000*l.*, 4 per cent.; and 188,000,000*l.* of 3 per cent., besides the floating debt. It was proposed to convert the $4\frac{1}{2}$ per cent. Stock into 3 per cent., and for the benefit of obtaining Rentes at a rate of interest guaranteed against any reduction in exchange for the $4\frac{1}{2}$ per cent. Securities, subject to reduction, the government demanded a compensation of 6 f. for each 4.53 f. Rente.

The operation of the contemplated conversion was described as follows, in the report presented by M. Goudin:—

“First, for the fundholder willing to convert; what will be his new position in comparison with that which he abandons? He now possesses a $4\frac{1}{2}$ Stock, subject to the right of reimbursement at 100 f. at par, which the government may exercise whenever it thinks fit. That stock, kept down by that perspective, participates in no way in the elasticity of public credit, and its proprietor will be always on the eve of seeing his position deteriorated, especially in presence of that normal result, demonstrated by experience, to which fixed capital is subjected—the gradual diminution of its primitive value. In exchange for that title of Rente constituted at the nominal capital of 100, and producing 4 f. 50 c. annual interest paid half-yearly, the government offers him a new title, also producing 4 f. 50 c. of interest, and representing a nominal capital of 150 f., since that title will represent 4 f. 50c. of a 3 per cent. Stock, instead of 4 f. 50 c. of a $4\frac{1}{2}$ per cent. Stock. The interest will be paid quarterly, and the fear of a reduction in the income will entirely disappear, it being impossible for the government to obtain a reduction, otherwise than in offering the integral reimbursement of the nominal capital—that is, 100 f. for every 3 per cent. interest. It is true, that the bill imposes on the fundholder, in case of conversion, the obligation of paying to the Treasury an addition, which will be in reality the price of the renunciation on the part

“ of the government of the exercise of its right to reimburse.
 “ What will be the amount of that addition ? Therein lies all the
 “ question.”

Having, then, by a series of calculations, fixed this addition at 6 f. for each 4 f. 50 c. of $4\frac{1}{2}$ per cent. Stock, that is, compelling the holder of an inscription of 4,500 f. of $4\frac{1}{2}$ per cent., in receiving an equivalent sum of 4,500 f. of 3 per cent., to pay to the Treasury 6,000 f. M. Goudin proceeded to show what will be the consequences of such operation on the Treasury as follows :—

“ The Rente to be converted is composed of 173,405,534 f. of the
 “ $4\frac{1}{2}$ per Cents., and 2,335,652 f. of the 4 per Cents. ; together,
 “ 175,741,186 f. Of that sum, public establishments and institutions
 “ possess 35,630,059 f. of the $4\frac{1}{2}$ per cent., and 838,014 f. of the 4
 “ per cent. ; together, 36,468,073 f., which reduces the amount in the
 “ hands of private holders to 149,273,123 f. If this latter sum were
 “ integrally converted (representing 33,171 inscriptions of 4,500 f.)
 “ the addition of 6 f. for each 4 f. 50 c. interest, or of 6,000 f. for each
 “ 4,500 f. of Rente, would produce to the Treasury a payment of
 “ 199,000,000 f. That amount will vary according to the success of
 “ the operation ; but we believe we shall not be far from the reality
 “ in stating that it will procure a resource to the Treasury of about
 “ 150,000,000 f., which will lighten the floating debt to that amount
 “ without adding fresh permanent charges to the public debt. It
 “ will also be for future budgets an annual economy of about
 “ 7,000,000 f. However favourable that solution may be, it is not,
 “ in our opinion, the most important motive for deciding on the adop-
 “ tion of the bill. The adoption is above all recommended for the
 “ assistance which it will give to the elevation of our credit.
 “ That elevation is at present forcibly kept down by the composition
 “ of our present public debt, which, in a total of 320,000,000 f. (in
 “ this sum are not included the Rentes redeemed and possessed by
 “ the sinking fund, amounting to more than 39,000,000 f.) offers an
 “ amount of 175,000,000 f. of Rente completely removed from the
 “ influence of credit, and which has a prejudicial effect on the 3 per
 “ Cents. The unification of our debt is the principal aim of the bill.
 “ No one thinks of disputing the advantages of that unification at
 “ the point of view of the improvement of our credit and we cannot,
 “ too earnestly support the government in its efforts to that end ;
 “ but, besides the elevation of our public credit, it is impossible not
 “ to take into account the immediate saving that this proposed
 “ operation will procure. That saving, susceptible to be increased
 “ to 10,000,000 f., will, were it only to amount to 7,000,000 f. or
 “ 8,000,000 f. be of great importance by reason of its immediate
 “ realization.”

On the 12th February a decree was passed fixing the addition at

5 f. 4 c. for 4 f. 50 c. of $5\frac{1}{2}$ per cent. Rentes, and 1 f. 2 c. for 4 f. 4 per Cents.

United States of America.

We shall now pass from France to the United States of America, and in doing so, it is well becoming to give due credit to that government for the regard which they have always shown to the sacredness of their obligations. We have scarcely any other example of a country twice paying off the entire of her public debt. The debt contracted in the struggle for achieving their independence was all paid. The debt accrued from the war with this country in 1812 was also all paid in 1835.

Much has been said of the few States which have repudiated their local debts, but we would do well to inquire into each individual case before we utter sweeping condemnations, and, at any rate, it is unjust to blame the Government of the United States for the misdeeds of a few of its provinces.

Before the present rebellion, the debt of the United States amounted to 17,000,000*l.*, but even that was in course of extinction, as will be seen from the following table:—

(*L.*)—*Debt of the United States.*

	£
1852	13,569,102
'53	11,736,699
'54	9,369,887
'55	8,327,027
'56	6,450,814
1857	5,242,740
'58	9,356,412
'59	12,300,000
'60	15,100,000
'61	17,000,000

Since then, however, the debt of the United States of America has assumed a sudden and gigantic expansion. The secession of the Southern States from the Union, constituting themselves into a separate Union, under the name of the Confederate States of America, has been sternly opposed by the Congress, and a fierce war has since raged between the parties. To defray the charges of this war, both parties have issued inconvertible notes to a large amount. It is estimated that the debt of the United States, in June, 1862, is not short of 300,000,000*l.*; but no statistical data exists as yet as regards the debt of either the United or Confederate States of America.

Yet their resources are great, and the rate of increase has hitherto been wonderful, as will be seen from the value of real and

personal estate in the United States derived from the seventh census in 1850, and the eighth census in 1860.

(M.)—*Wealth and Resources of United States.*

States.	In 1850.	In 1860.	Increase.	Increase per Cent. for Ten Years.
	\$	\$	\$	\$
Alabama	228,204,332	495,237,078	267,032,746	117·01
Arkansas	39,841,025	219,256,473	179,415,448	450·32
California*	22,161,872	207,874,633	185,712,761	837·98
Connecticut.....	155,707,980	444,274,114	288,566,134	185·32
Delaware	21,062,556	46,242,181	25,179,625	119·54
Florida	22,862,270	73,101,500	50,239,230	219·74
Georgia	335,425,714	645,895,237	310,469,523	92·56
Illinois.....	156,265,006	871,860,282	715,595,276	457·93
Indiana	202,650,264	528,835,371	326,185,107	160·95
Iowa	23,714,638	247,338,265	223,623,627	942·97
Kansas.....	—	31,327,895	—	—
Kentucky	301,628,456	666,043,112	364,414,656	120·81
Louisiana.....	233,998,764	602,118,568	368,119,804	157·30
Maine	122,777,571	190,211,600	67,434,029	54·92
Maryland	219,217,364	376,919,944	157,702,580	71·93
Massachusetts	573,342,286	815,237,433	241,895,147	42·19
Michigan	59,787,255	257,163,983	197,376,728	330·13
Minnesota {	Not returned	52,294,413	—	—
Mississippi	228,951,130	607,324,911	378,373,781	165·26
Missouri	137,247,707	501,214,398	363,966,691	265·18
New Hampshire	103,652,835	156,310,860	52,658,025	50·80
New Jersey †	200,000,000	467,918,324	267,918,324	133·95
New York	1,080,309,216	1,843,388,517	763,029,301	70·63
North Carolina	226,800,472	358,739,399	131,938,927	58·17
Ohio	504,726,120	1,193,898,422	689,172,302	136·54
Oregon	5,063,474	28,930,637	23,867,163	474·35
Pennsylvania	722,486,120	1,416,501,818	694,015,698	96·05
Rhode Island	80,508,794	135,337,588	54,828,794	68·10
South Carolina	288,257,694	548,138,754	259,881,060	90·15
Tennessee	201,246,686	493,903,892	292,657,206	145·42
Texas	52,740,473	365,200,614	312,460,141	592·44
Vermont	92,205,049	122,477,170	30,272,121	32·83
Virginia	430,701,082	793,249,681	362,548,599	84·17
Wisconsin	42,056,595	273,671,668	231,615,073	550·72
District of Columbia	14,018,874	41,084,945	27,066,071	193·06
Nebraska.....	—	9,131,056	—	—
New Mexico	5,174,470	20,813,768	15,639,298	302·24
Utah	986,083	5,596,118	4,610,035	467·50
Washington, T.	—	5,601,466	—	—
Total	7,135,780,227	16,159,616,068	9,023,835,841	126·45

* Only 13 counties in California have been returned thus far.

† In New Jersey, as the real estate only was returned, the figures above are partly estimated.

Italy.

Italy has entered the family of States laden with a heavy debt. What was the cost of the late war of independence we scarcely know, but on the 1st January, 1861, the debt amounted to 90,000,000*l*. The resources of Italy are, however, as yet quite undeveloped. With permanency of political institutions, with perfect security for the investment of capital, with freedom of locomotion, with impartial and prompt administration of justice, with an equilibrium of revenue and expenditure, and with civil and religious liberty, secured by public law and by the unanimous sanction of an enlightened people,—Italy may yet achieve for herself a political greatness second to none amongst the powers of Europe; and the debts of the separate States which have been recently consolidated, will, we trust, prove light and unoppressive.

Austria.

The financial condition of Austria has been ruinous in the extreme, for a long series of years.

The progress of the Austrian debt has been as follows :—

(N.)—*Progress of Austrian Debt.*

Years.	Total Debt.	Reduced into Stock by Reduction of from 5 to 2½ per Cent.	Bank Notes and other Securities in Circulation.	Interest.
	£	£	£	£
1811	80,668,000	72,664,000	21,000,000	770,000
'21	101,051,786	88,830,730	33,000,000	2,600,000
'91	112,415,941	100,282,028	50,000,000	3,400,000
1841	115,745,042	105,306,991	12,000,000	4,200,000
'51	168,983,369	155,551,700	721,000	5,000,000
'60	251,000,000	239,000,000	—	11,000,000

Prussia.

The debt of Prussia also has increased as follows in the last decennium :—

(O.)—Progress of Prussian Debt.

Years.	Capital.	Interest.
	£	£
1850.....	23,400,000	733,000
'51.....	27,400,000	914,000
'52.....	28,400,000	900,000
'53.....	33,000,000	1,077,000
'54.....	32,700,000	1,070,000
1855.....	34,000,000	1,100,000
'56.....	37,000,000	1,901,000
'57.....	38,000,000	2,000,000
'58.....	37,000,000	2,200,000
'59.....	41,000,000	2,200,000
1860.....	42,000,000	2,300,000
'61.....	42,000,000	2,300,000

Russia.

And the following has been the progress of the debt of Russia, funded and unfunded :—

(P.)—Progress of Russian Debt.

	£
1853	125,000,000
'54	132,000,000
'55	119,000,000
'56	165,000,000
1857	206,500,000
'58	240,000,000
'59	231,000,000

Mexico.

Mexico is now bearing the penalty of having worn out the patience of her creditors. The debt in 1856 amounted to—

	£
Internal debt.....	16,000,000
Foreign „	11,000,000
Not regulated	1,000,000
	<u>28,000,000</u>

Turkey.

Turkey has entered the number of indebted nations. Her debt in 1861 consisted of—

	£
Interior debt.....	18,312,000
Foreign „	14,537,220
	<u>32,849,220</u>

Greece has done little or nothing to pay either interest or capital of the debt guaranteed by the three powers.

There are only two favoured countries exempt from national debt in the whole range of civilized nations, whose finances and political status are recognized in the "*Almanack de Gotha*," one of these an ancient and happy republic in the centre of Europe—free Switzerland; another, a young and yet unknown republic in the centre of South America—Paraguay. They offer a noble example to the civilized world, which we would fain hope, notwithstanding all the prospects to the contrary, may be yet followed. Let us ever remember, that for ordinary wants, every State is able to provide the necessary funds out of the ordinary national resources; and that loans are too often obtained in order the better to crush the rights and liberties of peoples. Nothing, for instance, would be more likely to encourage the continuance of the unhappy conflict in America than a willingness on the part of our capitalists to lend their funds to either party. Let them feel the impossibility of prolonging the contest, and we shall be spared to see the continuation of the mutual slaughter and devastation which now convert the fruitful fields of North America into a scene of blood and destruction. A serious moral obligation rests on our capitalists in this important matter, which it is well they should remember. Mr. Cobden forcibly urged it upon them when an Austrian loan was in the market; "Happily," he said, "by the ordinance of Divine Providence, war is in its nature self-destroying; and if a country engaged in hostilities were left to itself, war must have a speedy termination. But this system of foreign loans for war-like purposes, by which we are invited to pay for the arms, clothing, and food, of the belligerents, is a system calculated almost to perpetuate the horrors of war; and they who lend money for these purposes, are destitute of any one excuse by which men try to justify to their own consciences the resort to the sword. They cannot plead patriotism, self-defence, or even anger, or the lust of military glory. No! but they sit down early to calculate the chances to themselves of profit and loss, in a game in which the lives of human beings are at stake. They have not even the pleasure—the savage and brutal gratification which ancient and pagan people had, when they paid for a seat in the amphitheatre to witness the bloody combats of gladiators in the arena. It should be borne in mind by capitalists everywhere, that there are times when it behoves them to remember that property has its duties as well as its rights, and that they who forget their duties are running the risk of endangering their rights."

As to the national debt of this country, whatever be the difficulty that may present itself in connection with any scheme for paying it

off, it is well to impress on the nation the duty to form a fixed determination to make such sacrifices for the purpose as are compatible with public prosperity, and that if we will avert future loans, we must endeavour to keep down the military expenditure now really out of all reason excessive. With the continuous progress for wealth, and with further improvements in the methods of taxation, we shall find it is true, that the national debt will become less and less burdensome; yet having regard to the undoubted fact that it stands in the way of a sound financial and economical legislation, it is incumbent on us to enter vigorously in some well-digested plan which may give us the certain, though distant, hope of a speedy extinction of the British national debt.

CONTENTS OF APPENDIX.

- Q.—Funded Debt of the United Kingdom.
- R.—Unfunded Debt.
- S.—Estimated Capital of Terminable Annuities.
- T.—Total Debt.
- U.—Charges.
- V.—Cost of Management of Debt.
- W.—Number of Persons entitled to Dividends.
- X.—Comparative Amount of National Debt of the principal Countries.
- Y.—Percentage Relation of Interest and Debt to Public Expenditure in the principal Countries.
- Z.—Progress of British National Debt.
- AA.—Average Value of British 3 per Cent. Consols.

APPENDIX.

(Q.)—*Funded Debt of the United Kingdom, 31st March, 1861.*

GREAT BRITAIN.		£
New Annuities, $2\frac{1}{2}$ per cent.		2,965,980
Exchequer Bonds		418,300
Debt due to the Bank of England, 3 per cent.		11,015,100
Consolidated Annuities		400,363,108
Reduced „		114,661,163
New Annuities		213,072,181
„ at $3\frac{1}{2}$ per cent.		240,746
„ 5 „		430,604
Total, Great Britain		<u>743,167,182</u>

IRELAND.		
New Annuities, $2\frac{1}{2}$ per cent.		3,080
Consolidated „ 3 „		6,261,494
Reduced „		125,645
New „		32,929,439
Debt due to the Bank of England, $3\frac{1}{4}$ per cent.		2,630,769
New Annuities		2,000
Total, Ireland		<u>41,952,427</u>
		<u>785,119,609</u>

(R.)—*Unfunded Debt, 31st March, 1861.*

	£
Exchequer Bills	13,089,000
„ Bonds	3,600,000

(S.)—*Estimated Capital of Terminable Annuities to 31st March, 1860.*

GREAT BRITAIN.		£
Terminable Annuities		10,318,211
Annuities for terms of years		780,652
„ expiring 5th April, 1867		3,608,744
„ „ 1885		1,922,190
Tontines, English		118,693
„ Irish, payable on hand		115,969
		<u>16,864,459</u>
IRELAND.		
Tontine, payable in Ireland		24,551
		<u>16,889,010</u>

(T.)—*Total Debt.*

	£
Estimated capital, Terminable Annuities	16,889,010
Exchequer Bills	13,089,000
„ Bonds	3,600,000
Permanent funded debt	785,119,609
	<hr/>
	818,697,619

(U.)—*Charges.*

	£
Annual interest of unredeemed debt, Great Britain	22,288,956
„ „ Ireland	1,265,174
Annuities, per Geo. IV, cap. 22, expire 5th April, 1867	585,740
„ 18 Vict., cap. 18, and 22 and 23 Vict., cap. 109, } expire 5th April, 1885	128,760
„ for a limited term of years, per 59 Geo. III, cap. 34, } 10 Geo. IV, cap. 24, and 3 Will. IV, cap. 14, } expire at various periods	77,492
Life Annuities, per 48 Geo. III, cap. 142, 10 Geo. IV, cap. 24, } 3 Will. IV, cap. 14, and 16 and 17 Vict., cap. } 45	1,032,959
Tontine and Life Annuities, per various Acts, English	12,211
„ „ „ Irish	23,311
Management	76,790
	<hr/>
	25,491,393

Charge on Unfunded Debt.

	£
Interest due to the same date on Exchequer Bills	143,541
„ „ Bonds	40,315

(V.)—*Cost of Management of Debt for the Year ending 31st March, 1860.*

	£	£	£
To the Bank of England, on 600,000,000 at 340 per million			204,000
„ 136,278,362 „ 300 „			40,883
	<hr/>		<hr/>
736,278,362 including estimated capital of terminable annuities, payable at the Bank of England, calculated for <i>management</i> only, at 25 years' purchase.			244,883
Deduct payments to Government by the Bank			188,078
Balance of charge for total debt			56,805
„ for capital purchased of the South Sea Company			1,579
„ Bank, original capital			4,000
			<hr/>
Total charge paid to Bank of England			62,384
Expenses of National Debt Office for payment of interest on } annuities			14,763
			<hr/>
			77,147

(W.)—*Number of Persons entitled to Dividends on the First Dividend Day, 1860.*

	Not Exceeding					
	£5.	£10.	£50.	£100.	£200.	£300.
3 per Cent. Consol Annuities ...	45,789	19,831	43,047	11,740	7,163	2,058
New 5 per Cent. Annuities.....	33	24	123	30	16	2
„ 3½ „ 1854	24	13	37	8	8	3
„ 2½ „	160	103	273	83	46	19
Annuities for term of years	451	329	898	156	62	19
Consolidated Long Annuities } ¼ payments	3,334	1,695	2,391	283	120	50
India 5 per Cent. Stock	552	280	1,249	195	134	43
3 per Cent. Reduced Annuities....	12,390	5,195	11,797	3,361	1,870	532
New 3 per Cent. Annuities	31,285	16,002	26,294	6,553	3,313	908
Annuities for 30 years	483	303	553	80	43	9
„ term of years	59	70	147	27	12	3
	94,560	43,845	86,808	22,516	12,787	3,646

	Not Exceeding			Exceeding	Total.
	£500.	£1,000.	£2,000.	£2,000.	
3 per Cent. Consol Annuities ...	1,430	644	192	96	131,990
New 5 per Cent. Annuities.....	5	—	—	—	233
„ 3½ „ 1854	2	—	—	—	95
„ 2½ „	7	2	4	1	698
Annuities for term of years	18	18	8	15	1,974
Consolidated Long Annuities, } ¼ payments	20	15	5	18	7,931
India 5 per Cent. Stock	16	8	4	5	2,486
3 per Cent. Reduced Annuities....	307	147	62	34	35,695
New 3 per Cent. Annuities	607	253	83	36	85,334
Annuities for 30 years	4	3	3	3	1,484
„ term of years	1	1	—	2	322
	2,417	1,091	361	210	268,242

(X.)—*Comparative Amount of National Debts of the principal Countries.*

	£		£
Great Britain	800,000,000	Denmark	13,000,000
France	381,000,000	Saxony	9,500,000
Austria.....	239,000,000	Greece	8,000,000
Russia	231,000,000	Hanover.....	7,000,000
Spain	108,000,000	Baden.....	7,000,000
Holland	91,000,000	Saxony	6,000,000
Italy.....	90,000,000	Wurtemberg	5,000,000
Prussia.....	42,000,000	Hamburg	4,600,000
Turkey.....	33,000,000	Mexico	3,000,000
Belgium	29,000,000	Equator	2,700,000
Portugal	28,000,000	Argentine Republic (foreign)	2,400,000
Bavaria.....	19,000,000	Brunswick	1,500,000

(Y.)—*Percentage Relation of Interest and Debt to Public Expenditure in the principal Countries.*

	Per cent.		Per cent.
Netherlands	41·7	Greece	18·3
Great Britain.....	39·4	Russia	18·0
Portugal.....	28·6	Spain	15·5
France	27·1	Turkey	14·6
Austria	25·7	Italy	14·0
Denmark	25·6	Prussia	10·8
Belgium.....	20·9	Sweden	10·1
Germany	19·2		

(From the "Almanack de Gotha" for 1862.)

(Z.)—*Progress of British National Debt.*

Year.	Capital.	Average.	Interest.	Average.
	Mlms.	Mlms.	Mlms.	Mlms.
1691	3,13	—	,23	—
'92	3,31	—	,23	—
'93	5,90	—	,50	—
'94	6,73	—	,81	—
'95	8,43	—	,88	—
'96	11,57	—	1,08	—
'97	14,52	—	1,32	—
'98	15,44	—	1,46	—
'99	13,79	—	1,42	—
1700	12,60	9,54	1,25	,92
1701	12,55	—	1,21	—
'02	12,76	—	1,21	—
'03	12,32	—	1,15	—
'04	12,36	—	1,23	—
'05	12,13	—	1,21	—
'06	12,38	—	1,44	—
'07	15,24	—	1,59	—
'08	15,51	—	1,72	—
'09	18,93	—	1,92	—
'10	21,33	14,55	2,06	1,47
1711	22,39	—	2,27	—
'12	34,92	—	3,03	—
'13	34,69	—	3,00	—
'14	36,17	—	3,06	—
'15	37,42	—	3,11	—
'16	37,91	—	3,16	—
'17	40,30	—	3,14	—
'18	40,37	—	2,96	—
'19	41,87	—	2,82	—
'20	53,97	38,00	2,84	2,94
1721	54,40	—	2,85	—
'22	54,20	—	2,80	—
'23	52,99	—	2,72	—
'24	53,32	—	2,72	—
'25	52,23	—	2,71	—
'26	52,85	—	2,73	—
'27	52,52	—	2,36	—
'28	51,96	—	2,30	—
'29	51,54	—	2,29	—
'30	50,83	61,68	2,22	2,57

(Z.)—Progress of British National Debt—Contd.

Year.	Capital.	Average.	Interest.	Average.
	Mlns.	Mlns.	Mlns.	Mlns.
1731	50,73	—	2,21	—
'32	49,83	—	2,18	—
'33	48,72	—	2,15	—
'34	48,82	—	2,13	—
'35	48,94	—	2,14	—
'36	50,42	—	2,10	—
'37	47,23	—	2,05	—
'38	46,49	—	2,02	—
'39	46,61	—	2,03	—
'40	47,12	48,49	2,05	2,11
1741	48,38	—	2,09	—
'42	51,84	—	2,15	—
'43	53,20	—	2,18	—
'44	56,74	—	2,29	—
'45	59,71	—	2,42	—
'46	64,61	—	2,65	—
'47	69,11	—	2,88	—
'48	75,81	—	3,16	—
'49	77,48	—	3,20	—
'50	76,85	63,37	2,78	2,58
1751	77,19	—	2,76	—
'52	76,43	—	2,73	—
'53	75,03	—	2,69	—
'54	72,12	—	2,64	—
'55	72,50	—	2,65	—
'56	74,57	—	2,75	—
'57	77,82	—	2,73	—
'58	83,12	—	2,91	—
'59	91,27	—	3,10	—
'60	102,01	80,21	3,57	2,86
1761	114,29	—	4,14	—
'62	126,79	—	4,74	—
'63	132,71	—	5,03	—
'64	133,28	—	5,00	—
'65	131,81	—	4,02	—
'66	131,63	—	4,88	—
'67	132,11	—	4,87	—
'68	132,58	—	4,87	—
'69	130,31	—	4,78	—
'70	129,19	129,57	4,71	4,71
1771	128,98	—	4,73	—
'72	128,03	—	4,70	—
'73	128,87	—	4,74	—
'74	127,16	—	4,69	—
'75	126,84	—	4,70	—
'76	131,23	—	4,87	—
'77	136,77	—	5,11	—
'78	143,05	—	5,48	—
'79	153,57	—	6,10	—
'80	167,46	137,19	6,93	5,20

(Z.)—Progress of British National Debt—Contd.

Year.	Capital.	Average.	Interest.	Average.
	Mlms.	Mlms.	Mlms.	Mlms.
1781	189,25	—	7,45	—
'82	214,72	—	8,41	—
'83	231,84	—	9,06	—
'84	243,06	—	9,54	—
'85	245,58	—	9,67	—
'86	245,46	—	9,66	—
'87	244,27	—	9,59	—
'88	243,63	—	9,57	—
'89	242,75	—	9,56	—
'90	242,46	234,30	9,58	9,21
1791	241,67	—	9,51	—
'92	239,66	—	9,43	—
'93	247,87	—	9,71	—
'94	263,30	—	10,39	—
'95	321,46	—	12,69	—
'96	363,89	—	14,76	—
'97	388,91	—	15,57	—
'98	427,52	—	16,88	—
'99	442,32	—	17,56	—
1800	470,89	340,72	18,58	13,51
1801	517,51	—	19,81	—
'02	537,65	—	20,26	—
'03	547,73	—	20,81	—
'04	571,13	—	21,65	—
'05	599,86	—	22,56	—
'06	621,09	—	23,19	—
'07	633,80	—	23,37	—
'08	643,54	—	23,59	—
'09	654,46	—	24,29	—
'10	662,19	598,89	24,55	22,41
1811	678,20	—	25,48	—
'12	706,25	—	26,85	—
'13	788,09	—	29,89	—
'14	813,14	—	31,10	—
'15	861,03	—	32,64	—
'16	845,96	—	32,05	—
'17	839,38	—	31,59	—
'18	840,58	—	31,48	—
'19	836,53	—	31,16	—
'20	834,90	804,40	31,35	30,36
1821	827,98	—	31,10	—
'22	835,20	—	29,72	—
'23	827,48	—	30,14	—
'24	819,02	—	29,17	—
'25	809,83	—	28,98	—
'26	808,82	—	29,41	—
'27	805,09	—	29,32	—
'28	800,03	—	29,16	—
'29	796,79	—	29,06	—
'30	784,89	811,50	28,32	29,44

(Z.)—Progress of British National Debt—Contd.

Year.	Capital.	Average.	Interest.	Average.
	Mlns.	Mlns.	Mlns.	Mlns.
1831	782,71	—	28,32	—
'32	781,45	—	28,35	—
'33	779,73	—	28,48	—
'34	773,23	—	28,51	—
'35	788,66	—	29,13	—
'36	789,49	—	29,66	—
'37	787,52	—	29,53	—
'38	786,84	—	29,43	—
'39	787,23	—	29,38	—
'40	788,64	784,55	29,41	29,02
1841	792,20	—	29,46	—
'42	791,75	—	29,30	—
'43	792,66	—	29,04	—
'44	787,98	—	28,27	—
'45	785,11	—	28,12	—
'46	782,97	—	28,02	—
'47	790,37	—	28,44	—
'48	791,81	—	28,30	—
'49	790,92	—	28,09	—
'50	787,02	789,28	28,02	28,50
1851	782,86	—	27,90	—
'52	779,36	—	27,84	—
'53	771,33	—	27,59	—
'53-54....	769,08	—	27,71	—
'54-55....	775,21	—	27,36	—
'55-56....	803,91	—	28,44	—
'56-57....	808,10	—	28,55	—
'57-58....	805,13	—	28,40	—
'58-59....	805,07	—	28,20	—
'60-61....	802,00	790,20	26,17	27,81

(AA.)—*Average Value of the British 3 per Cent. Consols. From Paper 119, Session 1824, Marshall's "Tables," McCulloch's "Dictionary," and "Miscellaneous Statistics," published by the Board of Trade.*

Years.	Prices.	Years.	Prices.	Years.	Prices.
	£ s. d.		£ s. d.		£ s. d.
1786-90	75 10 10	1815.....	58 13 9	1838	92 17 6
'91.....	84 4 10	'16.....	62 1 2	'39	91 11 3
'92.....	89 12 8	'17.....	76 16 —	'40	89 7 6
'93.....	74 19 9	'18.....	78 1 5	'41	88 17 6
'94-95	66 11 10	'19.....	71 19 3	'42	91 16 3
1796.....	60 2 5	1820.....	68 11 3	1843	94 12 6
'97.....	50 1 —	'21.....	73 15 —	'44	98 17 6
'98.....	50 12 —	'22.....	79 3 9	'45	96 5 —
'99.....	59 10 5	'23.....	79 12 6	'46	95 10 —
1800	63 3 3	'24.....	91 11 3	'47	86 7 6
1801.....	61 6 6	1825.....	87 11 3	1848	84 7 6
'02.....	70 1 2	'26.....	79 5 —	'49	87 5 —
'03.....	57 3 3	'27.....	83 2 6	'50	94 5 —
'04.....	56 16 6	'28.....	85 17 6	'51	96 15 —
'05.....	58 14 —	'29.....	90 12 6	'52	97 7 6
1806.....	61 2 8	1830.....	86 10 —	1853	100 3 7
'07.....	62 17 3	'31.....	79 17 6	'54	93 1 3
'08.....	66 11 6	'32.....	83 15 —	'55	90 10 6
'09.....	68 1 8	'33.....	88 8 9	'56	92 8 9
'10.....	67 16 3	'34.....	90 5 —	'57	92 — —
1811.....	63 12 3	1835.....	91 — —	1858	97 — —
'12.....	58 18 8	'36.....	89 8 9	'59	95 — —
'13.....	58 15 9	'37.....	91 1 3	'60	94 — —
'14.....	66 11 4				

An UNDISCRIMINATING INCOME TAX RECONSIDERED. By WILLIAM LUCAS SARGANT, author of "Social Innovators and their Schemes," "Science of Social Opulence," &c.

I.—*Introduction. House of Commons' Report. Conflicting Authorities.*

ON the 16th of April last year (1861), I read before the Statistical Society a paper on the principles of the income tax. Mr. Hubbard's committee of the House of Commons was at that time pursuing its inquiries, and in the following August made its report, pronouncing against the expediency of any alteration in the incidence of the tax. Since that time I have carefully considered that report, and the evidence on which it was founded.

An epitome of the blue book presented to the House, a short account of the ingenious and searching and perplexing questions put to the able witnesses by the distinguished members of the committee, might be a boon to those who shrink from the task of wading through the long double columns of the report, but I have preferred a task not so easily performed. My perusal of this blue book, and a reference to the evidence of May and June, 1852, given before Mr. Hume's committee, suggested to me many doubts as to the accuracy of the principles of taxation commonly propounded. Comparing the evidence of the highest authorities in favour of a discriminating tax, and the very various and inconsistent reasons adduced in support of it, I inferred that there was no agreement as to the rudimentary principles of taxation. All, indeed, appealed to Adam Smith's dictum, but each one interpreted it after his own fashion.

I found one authority stating that a man ought to be taxed in proportion to the income which he can afford to spend; and that as the income tax is only temporary, its incidence ought to be nearly *the same* as that of indirect imposts. I found another stating that the income tax ought to be regarded as permanent; and that, among many other advantages, it possessed this eminent one—that its incidence was quite *different* from that of indirect imposts, since it took toll from those fortunate men who, with large incomes and few wants, contributed little to taxes on expenditure. I found a third stating that men should pay in proportion to their ability; that that ability should be estimated, not according to present income, but according to the property possessed; property, however, being taken to mean, not merely land, houses, funds, and other *external* objects,

but also skill, abilities, and everything else *inherent* in the tax-payer: besides that every income should be regarded as an annuity, and should be taxed according to its present capitalized value. A fourth told me that savings ought not to be taxed, because when invested they yield an income which is afterwards subject to assessment; and that as it is impossible to make allowance for individual frugality, the Government ought to presume that savings will be made by those classes whose incomes are of short or uncertain duration; further, that justice requires each individual to pay, not an equal proportion of his income, but such a sum as shall in every case entail an equal sacrifice. Other opinions I found expressed: that capital should not be taxed in passing from hand to hand; that savings are capital, and should therefore be exempted; that professional education and waiting for practice are virtually capital, and give a claim to exemption; that the tax-gatherer should go to *persons, not things*; that he should go to *things, not persons*; that age *should* be taken into account; that age should *by no means* be taken into account.

II.—*Appeal to First Principles. A Fictitious Colony establishes a Government. The Cost of Governing is the Measure of Taxation.*

All these divers and conflicting opinions I find put forth by men who agree in desiring a reduction in the rate of tax, in favour of professional men, of traders, and of holders of terminable annuities. And as several of these witnesses are of the highest authority in political philosophy, I infer that there is something wanting at the root of the matter; and that the elementary principles of taxation are not yet agreed upon. I know the dangerous uncertainty of an appeal to abstract principles, but such an appeal is necessary in the last resort, and is, in truth, nothing more than the proceeding of Adam Smith, when, in his much quoted dictum, he compares the country to a great estate, each of the owners of which ought to pay for its management in proportion to the revenue he derives from it.

At the present day nothing is more unpalatable than an appeal to the origin of Government and the social contract; because it is felt that such notions are fictitious, and cannot be verified by experience. But we have in modern colonies, and especially in new American settlements, something going on which is analogous to a social contract, and what, at the same time, is sufficiently near to us to save us from gross errors of interpretation.

Let us, then, imagine a colony such as that of Salt Lake, recently planted quite in the wilderness; so far removed from a central power as to be practically independent; and at any rate at liberty to construct what government it pleases for local purposes. The first rude stage—the period of Lynch law—having passed away, the settlers meet together to agree upon mutual arrangements for protec-

tion from the Indians without, and depredators within. With the machinery agreed upon, with the militia and the police, the congress and the governor, we are not concerned; what we want to know is, how the taxes for supporting them would be levied.

How are a hundred thousand dollars to be raised annually? each man desires to know what share he will have to pay. First, there are two clearings, side by side, of equal extent and fertility, and exposed in the same degree to Indian attacks and domestic injuries; both the owners will be required to pay the same share of the 100,000 dollars. A third clearing is equal in every respect to the two former taken together; as much must be paid in respect of this one as of the other two. The owner of a fourth clearing feels himself more exposed than his neighbours, and asks for a double share of protection; he must pay double taxes. The owner of a fifth clearing relies on his natural defences and his own right arm, and as he wants no protection he is excused from contributing.

In all these cases there is one simple principle by which the contribution of each colonist is determined: everyone pays in proportion to the expense incurred by Government in protecting him. Just as he pays the storekeeper for the goods he buys, the lawyer for the advice he asks, the ploughman for the labour he hires, so he pays the Government for the protection he receives; and the amount he contributes is not regulated by the colonist's ability to pay, but by the cost incurred by Government on his behalf. This principle has been overlooked, or slighted, in most if not in all the reasonings I have seen. It has been stated, indeed, that a man pays for the protection he receives; but it has not been stated that, in the first instance, the amount he pays is only a reimbursement of the expense incurred by Government on his behalf.

I do not pretend that the simple state of things I have described bears any near resemblance to the complex condition of affairs in this country. But the illustration has suggested to me the propriety of inquiring, whether the principle I have mentioned may not be made use of in solving the knotty questions we have to deal with; whether each man among ourselves ought not, if it were possible, to contribute such a share of tax as would reimburse to his Government the expense incurred in protecting him and his property; whether by far the greater part of the public expenditure is not incurred for the purposes of protection; and whether as to that smaller part of the expenditure which is incurred for other purposes, such as education, promotion of art, and maintenance of the greatness and dignity, rather than the security of the country, other maxims ought not to prevail.

III.—*Should Taxation in the Colony be Modified according to Age, Tenure, Capitalized Value, Savings, Sacrifice Required, Benefit Received, Earned and Independent Incomes, Exemptions for Small Incomes, Graduation according to Wealth, Distinction between Current Expenditure and Permanent Improvements?*

At this point, we may, I think, advantageously inquire how far there might be applied to this primitive state of society, those rules of taxation which have been proposed for *our* guidance. The result of the inquiry, though not conclusive as to ourselves, may yet be suggestive.

1. First, it is alleged that the age* of the tax-payer ought to be taken into account in his assessment; a man of thirty, it is said, having a greater expectation of life than a man of seventy, ought to pay at a higher rate. Is this rule applicable in the colony?

I have assumed, in the first instance, the existence side by side, of two clearings, equally large, equally fertile, equally exposed to injuries. I have said that the owners would be required to pay the same share of 100,000 dollars. But what if one of them were a man of thirty, the other a man of seventy? Would this make any difference? The older man might say to the other, my expectation of life is twenty years less than yours, and I am, therefore, bound to save more than you are. I cannot hope to enjoy my income more than ten years; you may hope to enjoy yours thirty years; the present value of my expectation is far less than yours. In short, my ability to pay, and my stake in the colony, are far less than yours; therefore, I ought to pay a proportionably less tax. The younger man might answer thus:—I am not curious to inquire into the truth of your political arithmetic. I am satisfied with this plain reply. The militia and the police, guided by the central authority, now perform for us certain important duties, which we have hitherto performed for ourselves. To defend your clearing, costs the Government just as much as it costs it to defend my clearing; you and I, in paying the same tax, pay each of us for what we receive. When your ironmonger, and your lawyer, and your labourer, furnish you with commodities and services at a reduced rate, in consideration of your advanced age, then the Government may be justly called on to reduce your assessment. This answer seems to me conclusive; and I think that in this early stage of society, when protection is the sole function of Government, the cost of that protection is the just foundation of all assessments, and that the age of the tax-payer is beside the question.

2. Secondly, let us consider the matter of tenure. Both of the

* I do not pretend to be dealing here with the opinions of Dr. Farr and the actuaries.

twin clearings may have cost labour to the value of 15 or 20 dollars an acre, to bring them into their present condition. Now the owner of the one may have a reasonable hope that his estate will retain its value in perpetuity; whereas, the other owner may have become aware that an unfavourable change is taking place in the channel of a river, and that in a few years, perhaps in a year or two, his whole labours will be swallowed up. If B in this case says to A:—Your ability to pay taxes is greater than mine, because the shortness of my tenure obliges me to save: A will reply, as in the former instance, your estate costs as much to protect it as mine costs; and as the Government has taken this duty off your hands (a duty which previously cost you just as much as it cost me), and as the Government now expends on your behalf just as much as it expends on my behalf, your tax ought to be the same as mine. This reply seems to me conclusive, as regards this hypothetical state of society.

3. Incidentally, the question of capitalized value has been touched upon in both the above cases. In the first, the *older* man claims a reduction of assessment, on the ground that the present value of *his* expectation of income, is less than the present value of *the younger man's* expectation of income. In the second case, B claims a reduction of assessment, on the ground that the present value of his *precarious* estate, is far less than the present value of A's estate held *in perpetuity*. We have already seen that the two estates ought to pay alike, and we must conclude that, in the supposed condition of society, the present saleable value of an estate has no influence on the just assessment for taxation.

4. The same reply, I believe, would be rightly given to anyone who should claim a reduction of tax, on the ground that he had unusual reasons for desiring to save. A may say to B:—it is true that you have weighty reasons for saving a considerable portion of your income, whereas I may prudently spend the whole of mine. Taxes, you say, are more often levied on what a man actually spends; and you think that the most required by justice is, that they should be levied on what he can afford to spend. I reply, that the cost to Government of protecting your property is not affected by your rate of expenditure, any more than the cost to the storekeeper of the hardware and groceries he furnishes is affected by your rate of expenditure. Each plough, each policeman, each loaf of sugar, each soldier, costs a certain sum; and the settler to whom they are supplied must pay the cost of each.

5. As to savings, it is said, these ought not to be taxed, because they will be used as principal, and will thus furnish a revenue, which will become the subject of a tax in perpetuity; so that if they are now taxed, they will pay twice over. The reply in the colony will be, that if B saves part of his income, and invests it in another

clearing, this second clearing requires protection, and such protection must be paid for. The former tax was paid as a reimbursement of Government cost in respect to the first clearing; the latter tax will be paid as a reimbursement of Government cost in respect to the second clearing.

6. Two other questions seem capable of being decided in the same way. It is said that a just tax is not a tax which takes from every man the same proportion of his income, but a tax which imposes on every man the same degree of sacrifice. If, however, Government cost is the regulator, this notion, as applied to the colony, is false. It may be thought also, that everyone should pay according to the benefit he receives. An old man is more dependent on Government for protection than a young man is; a woman is more dependent than a man. But if the estates of the old man and of the woman are not more expensive to the Government than other estates are, no augmented tax should be paid by their owners.

7. A claim has been advanced for men who earn their incomes; a claim to pay less than is paid by men whose incomes are independent of their exertions. Now, in the colony, no such claim could be sustained. Earned incomes are generally of short duration, and are frequently precarious. I have already stated my reasons for thinking that neither shortness of duration, nor precariousness, could be admitted as a ground of reduction. And if it be thought that a man who has an independent income, is more favoured by fortune, and is, therefore, a fairer subject of taxation, I submit that such a consideration cannot for an instant be admitted, if we are to maintain the just principle, that a man shall pay for what he receives. The only way of sustaining the proposition to levy an additional tax on independent incomes, is to show that they cause an additional expense to Government.

8. There is also a question as to the practice of exempting certain persons, wholly or partially, on the ground of their inability to pay. Mr. Pitt exempted, for a time, all fathers with more than a certain number of children; Sir R. Peel exempted all persons who had less than 150*l.* a-year; Mr. Gladstone reduced the favoured class to persons having less than 100*l.* a-year, though charging a diminished rate from 100*l.* to 150*l.* a-year. Now, a settler with a large family, and a settler with small means, would require Government protection, and would cause a certain expense to Government. As regards mere *justice*, therefore, such persons have no claim to exemption. From considerations of charity, of compassion, of political expediency, this exemption may be allowed, but certainly not from consideration of justice.

9. Again, it has been proposed by some persons to vary the rate

of tax according to the amount of each man's income, so that if the owner of 100*l.* a-year paid 3*d.* in the pound, the owner of 500*l.* should pay 6*d.*, and the owner of 10,000*l.* a-year perhaps 2*s.* in the pound. This graduation is, of course, very distasteful to all wealthy men. But if we were to discuss it simply on the ground of expediency there would be a good deal to say in its favour; as, for instance, that an annual tax of 1,000*l.* to a man enjoying 10,000*l.* a-year, only cuts off certain superfluities, the want of which is merely imaginary, and the absence of which would not be felt after the first year. The scheme, however, is at once condemned as unjust, and therefore of the highest possible inexpediency, if we admit my principle—that men should pay in proportion to the cost of the protection they receive.

Suppose a number of clearings of equal extent, and such as to impose equal cost on the Government to protect them: that one settler had a single clearing, another had five, and a third ten. It might be proposed that the first settler should pay 3*d.* in the pound, the second 6*d.*, and the third 1*s.* The rich settler would say at once that he paid for what he received; that he would willingly pay for each of his clearings as much as was paid by anyone else for his, but that he could no more consent to be assessed at a higher rate for each clearing, than he could consent to pay an additional price for the commodities he purchased.

10. One other matter presents itself. I have hitherto regarded the taxes as a mere reimbursement of the current expense of governing the colony. The administration finds police and soldiers, and the central machinery for setting these in motion: the settlers find the money necessary; each one paying the cost incurred on his behalf. But suppose now, that certain public works are determined on. The colony is languishing, perhaps, for want of ready communication with the rest of the world, and it is resolved that labourers shall be employed to improve the river. Shall the funds for such a purpose be raised as the ordinary taxes are? An objection to this proceeding may be raised by the settler whose land is in progress of destruction. He may say:—your projected alterations leave my property as precarious as ever; two or three years will see the end of it, whereas four or five years will elapse before your project is completed; and even if I should be fortunate enough to save my land from being washed away long enough to allow me to enjoy some of the benefit of the amended channel, yet that must be for a very few years. But my neighbour will have the advantage in perpetuity. Certainly, he and I ought not to contribute the same share of the expense. Say that my expectation of income from my land is two years, that the expectation of B is ten years, that of C twenty years, that of D a perpetuity. Each of us ought to pay in proportion to this expecta-

tion, or, what is the same thing, in proportion to the present values of our respective expectations.

The distinction I have thus drawn, between Government expenditure for current purposes and Government expenditure for permanent improvements, may appear to be of little importance to us, among whom roads, canals, and railroads, are not executed by Government. But I have pointed out the distinction with a view to the exposure of what I regard as the fallacious proposal, to levy our ordinary taxes in proportion to the present, or capitalized value, of all incomes. I think that while such a proportionate assessment is fair for the purposes of *permanent* improvements—such as coast fortifications, or breakwaters—it is quite unfair for the purpose of the *current* expenditure of the administration.

IV.—*Another Stage of Progress. Income comes to be taken as the Test of the Cost of Protection. Temporary Incomes. Earned and Independent Incomes.*

Our fictitious colony has not at present much resemblance to an old country like England. Let us then carry it on a step further. As it grows, and clearings multiply, and farming ceases to be the altogether predominant business, it becomes impossible for individuals to make separate contracts with the authorities for protection and proportionate payment; all must now submit to the same rule of taxation. The farmers might still, if their own clearings were similarly circumstanced, pay according to the extent of their cultivated ground. But it might happen that there were different kinds of farming carried on. As in Australia, one colonist might raise wheat and green crops on a few scores or hundreds of acres; another might have flocks of sheep, ranging over a vast extent of country. The size of the settlements would cease to be a criterion of taxation; some substitute must be found.

Two plans offer themselves: first, that adopted by many of the United States in raising money for State purposes, and not for the Federal Government; the plan, I mean, of taxing all visible property: secondly, the plan of taxing all income, however produced; this income tax being either uniform or of a discriminating kind. But of the two, that would be the fairest in the eyes of the colony, which continued, as nearly as possible, to tax everyone so as to reimburse to the Government the cost of protecting him and his property.

Men accustomed to this simple rule of justice, would hardly be persuaded to depart from it in favour of any new rules, however ingenious. Finding the original plan of mere admeasurement to be now impracticable, they must, perforce, admit a substitute; but they would be apt to solve all knotty problems by a resort to the original

principle of payment in proportion to the cost of protection. If an old man pleaded for reduction of assessment, he would be answered that his caducity certainly did not lessen the cost of protecting him. If a man of temporary or precarious estate urged the same request, he would receive a similar reply. Men could not, indeed, be taxed according to the exact expense they respectively imposed upon Government; but they would be taxed on the *supposition*, that they respectively imposed a cost on Government proportionate to the income each of them enjoyed. No consideration of age, or tenure, or necessity of saving, or of savings effected, or of greater sacrifice required, would be seen to diminish the Government cost of protection, or would be, therefore, regarded as establishing a claim to reduction of assessment.

But as the colony advanced, and divers pursuits besides farming were commonly followed, various classes of persons would have to be called on by the tax-gatherer. There would be numerous stores, banks, offices, and town houses; and the owners of these, while receiving protection, would have to pay for it. In the first stage of the colony, when clearings paid according to their extent, a difficulty would have been felt in assessing the few existing town buildings, because these and the clearings would have had no common measure. But as soon as income is adopted for the assessment of lands, it is naturally adopted, also, for the assessment of town properties; and the desiderated common measure is found. It would be competent, indeed, for the citizens, or for the farmers, to allege, that in proportion to their incomes, they imposed, as a class, less cost upon Government than was imposed by the other class. But as no controversy on such a point has arisen among ourselves; as a rent in perpetuity is regarded by us as just equally taxable with interest of money in perpetuity; we may assume that rule as established; we may say, that in the colony all perpetual incomes will pay alike.

But now arises the question of incomes not in perpetuity. I considered, in the former stage of the colony, the case of a settler who had the certain expectation of having his land submerged: and I contended, that if he founded on this circumstance a claim for reduction of assessment, he would be told, that so long as his estate continued above water, it would entail on the Government an expense just as great as that entailed by any other estate of equal size; and that, therefore, his claim for reduction would be disallowed. With regard to this man, the same reasoning would prevail in the second stage of the colony. The only change is, that income has been substituted for extent of ground, as the measure of assessment; and it is now presumed that the Government cost of defending each estate and each town property, is proportionate to the income yielded. If a man now founds, on a precarious or short tenure, a claim for

reduction of tax, the previous answer will be given, viz., that the tax levied on him is only a reimbursement of the present Government cost of protecting his estate, and that this present cost is in no degree lessened by the certainty that in a few years the estate will cease to exist. A promise, however, will be given, that in case of taxation for permanent improvements, his shortness of tenure shall be allowed due weight.

Now, if a similar claim be set up in the town, on behalf of the owner of temporary or precarious houses; if it be urged that B's expectation of income is only three years, while A's expectation of the same income is perpetual; it will be answered that the Government cost of defending B's houses is just as great as the Government cost of defending A's property; that the temporary character of B's houses in nowise lessens the cost of defending them; and that, therefore, B must pay at the same rate as A.

At present, we have concerned ourselves principally with settlers in the country, though we have also considered the case of such persons as builders in the town. Both these classes have one characteristic—that their incomes are derived from industry in the use of capital—both classes are capitalists. But in a later period of the colony there may be two other classes to be dealt with; a class of persons such as mortgagees and Government annuitants, who have incomes independent of their exertions; and a class of persons such as lawyers and medical men, whose incomes are derived from professional exertions, with little use of capital.

As a representation of the independent class we may select a man whose clearing is bounded by the river, and is the only central part of the colony suitable for wharves. A considerable rent is the result; and this may have arisen either spontaneously, or from an outlay of capital; or in part spontaneously, in part from an outlay of capital: but in any case the income is independent of any present exertion on the part of the owner. I ask, then, whether this landlord ought to pay a higher rate of tax than is paid by his neighbours who earn their incomes. Still proceeding on the principle, that the cost to Government is the measure of each man's tax, what pleas shall we imagine put forth to support the proposal of a higher rate? It might be said that the independent income would be of longer duration than any earned income. We are already provided with an answer—that this is a good reason for requiring a larger payment towards permanent public improvements, but no reason for requiring a larger payment towards the current public expenditure. Another plea might be, that the man of independent means was better off than his neighbour, and could afford to pay more. The answer is again ready to our hands—that the ability of the taxpayer adds nothing to the cost imposed upon Government; and that there is no

just claim upon a rich man to pay more than others for a given quantity of protection, any more than there is a just claim upon a rich man to pay more than others for a given quantity of wheat or cloth. So long as Government cost is taken for the regulator, a man of independent means cannot be called on to pay at a higher rate than is paid by a farmer or a manufacturer.

V.—*The Colonial Illustration applied to our Case. Adam Smith's Dictum. Actual Examples of Reimbursement of Government Cost. Adam Smith's Illustration imperfect. Permanent Improvements. What Principle, if not this one? Graduation.*

The whole of my reasoning, thus far, has been founded on the proposition, that in the supposed colony everyone's taxation ought to be proportionate to the expense incurred by Government on his behalf. But as this rule is deduced from the imaginary circumstances of a fictitious colony, there remains the question, whether it is wholly or partially applicable to ourselves.

The maxim commonly adopted is that of Adam Smith, who, regarding our country as a great estate, with many co-proprietors, says that each of these may justly be called on to contribute to the expense of management, in proportion to the revenue he enjoys from the estate. Is there, in my proposition, anything inconsistent with this celebrated dictum?

Adam Smith, indeed, uses more words than those I have quoted. He says, that the subjects of a State ought to contribute "in proportion to their respective *abilities*; that is, in proportion to the "*revenue* which they respectively enjoy." The word *abilities*, stripped of the interpretation given to it by the second clause of the sentence, as the revenue enjoyed, has been construed by different writers so as to make it consistent with all kinds of modifications of the simple rule, that men should pay according to the revenues they respectively enjoy. Even those who desire to charge different rates of tax according to the age of the owner and the tenure of the property, confidently appeal to this word *abilities*, neglecting the interpretation put on it by Adam Smith himself. But neither the words nor the illustration will bear such an interpretation. For if an estate is held in equal shares, A, an *old* man, with one share, will not contribute less than B, a *young* man, with one share. C, with a share for his life, will not contribute less than D, who has a share in perpetuity.

I do not pretend, however, that the justice of the case is so clear in our complex condition of society, as in that fictitious condition where each man's cost to Government can be clearly ascertained. But though it is impossible to trace out all the ramifications of the principle, it may still be true that the Government cost is the just

measure of each man's taxation. A few additional words may help to convince us that it is so.

We can hardly doubt, that when Government incurs an unusual expense for individuals, or for an aggregation of persons, those who are benefited are justly called on to reimburse the outlay. If the proprietor of a theatre can induce the authorities to allow him a number of policemen to maintain order, he should be required to pay the cost of the men. But let us take a more important instance. We hear a good deal about the defence of our colonies; and we are told, that after deducting all charges for Gibraltar, Malta, and other military or naval positions, we incur, under this head, an annual expense of some two millions sterling.

It is argued that the colonies, having now perfect freedom of trade, and independence in all local matters, ought to pay for their own defence. But how much ought they to pay us? Unquestionably, just what that defence costs us in those cases where their quarrels are purely their own, and are not fastened upon them out of spite to the mother country. So in the case of our East Indian possessions. We do actually require that their public revenues should pay for the royal regiments we supply; and the actual cost of raising, sending, and maintaining these regiments, is precisely the just limit of our demand.

Now, if it were possible to divide the public expenditure, and to say, this portion is incurred for the protection of the land, this for the protection of houses, a third portion for the protection of trades, and a fourth for the protection of professions, we might then fix a different rate of payment for each class. It might then turn out that the property of men of independent incomes caused a *greater* Government cost, and must pay more; it might turn out that this property caused *smaller* Government cost, and must pay less. Such an apportionment is, of course, impossible; and the impossibility is put in a strong light by the fact exhibited in a recent number* of the *Statistical Journal*, that of our whole public expenditure not more than one-seventh is incurred for the Civil List; and that the remaining six-sevenths are incurred for army, navy, and national debt. We cannot say that the external defence of the country, and the national debt, which was principally contracted for warlike purposes, appertain to one class more than another.

We are thus driven to accept Adam Smith's illustration, and to regard the whole country as one vast property, in which each of us has one or more shares. But it seems to me none the less true, that a reimbursement of Government cost is still the just ground and measure of each man's taxation. Just as A, who has one share in

* *Statistical Journal*, vol. xxiv, p. 419.

an estate, pays a certain sum towards the expenses of management ; B, with two shares, pays twice as much ; C, with ten shares, ten times as much : so A, with 1,000*l.* a-year, accruing under the protection of Government, pays a certain sum towards the public expenditure ; B, with 2,000*l.* a-year of the same class of income, pays twice as much ; C, with 10,000*l.* a-year, pays ten times as much.

But it must be confessed, that Adam Smith's comparison of the country to an estate, furnishes only an imperfect illustration of the question at issue. The co-proprietors of the estate are all supposed to divide the net income of it, without any exertion to produce the income ; the persons designated as A, B, and C, are also supposed to be landlords, or mortgagees, or annuitants. So far the parallelism is satisfactory. But then there are other persons deriving an income from the estate--farmers who pay the rents divided by A, B, and C ; these persons pay no part of the expenses of management. There are persons also in the country who earn their incomes--farmers, manufacturers, professional men ; no one proposes that these person shall be altogether excused from contributing to the taxes by which the expenses of Government management are defrayed. We must search elsewhere for the means of determining what share of those expenses the different classes ought to pay.

There is one kind of Government expenditure which is incurred principally for the benefit of certain classes. I have already pointed out, in one stage of the colony, that if the administration undertook to improve the navigation of the river, old men, and others having a short tenure in their property, might fairly demand at least a partial exemption from the taxes for executing the works, on the ground that it would be only for a short time, if at all, that they should benefit by the improvements. Now, let us conceive, that thirty years ago our Government had resolved to construct a system of railways for this kingdom, and had determined to do the work so gradually as to be able to raise the necessary funds wholly by taxation. Wild as is the supposition, it is conceivable ; since an income tax of 1*s.* in the pound, from 1830 (the date of the opening of the Liverpool and Manchester line) to the present year, would have been sufficient. But an old man, whose income was not to descend to his family, or a professional man with his precarious income, might reasonably have objected, in 1830, to pay to this railroad fund at the same rate as landlords, fundholders, and other persons of permanent incomes. The old man might say, that before the first railroad would be opened he should be no more ; the professional man might say, that though he might hope to see a great many of the lines completed, yet the benefit to him would be small compared with that conferred on persons whose property, transmissible to sons and grandsons, would be greatly increased in value by the

improved communications. In such a case the Government cost is not incurred equally for all portions of the taxpayers, and therefore the rate of taxation ought to vary.

On this principle, of proportion between Government cost and individual taxation, I have not much more to say, beyond asking the question,—if this be not the foundation of just taxation, what is the foundation? and what other defence have we against graduation?

Most of the different proposals I have mentioned—such as that of reducing the rate for old men, or the rate for owners under a short tenure,—are grounded on the notion that men should pay in proportion to their means; taking means to signify, not income, but the present value of the expectation of income. Two men, equally well off, are to pay equal taxes. Now, this might pass under what is called paternal Government, but it is not justice. Barbadoes is a flourishing colony; Jamaica is an unprosperous one: say, that each asks for the services of an infantry regiment: we might, out of *compassion*, excuse Jamaica part of the cost, but *justice* would not allow us to charge Barbadoes more than the cost. So at home, compassion and political expediency may lead us to excuse persons of small incomes part of the taxes necessary to reimburse the cost of protecting them; but justice will not allow us to demand from men of great wealth a larger proportion of their income than we demand from persons of competent means. Just as, in the first stage of the colony, B, with ten clearings, would only pay ten times as much as A with one similar clearing; so at home, B, with 100,000*l.* a-year, must pay no more than 5 per cent., so long as A, with 1,000*l.* a-year pays 5 per cent. Yet I think it is only on this principle of proportion between Government cost and taxation that this uniformity of rate can be safely maintained. “Justice, not expediency,” is the watchword of the defence against graduation.

The very name, graduation, stinks in the nostrils of wealthy men; and they call it confiscation and socialism. Yet confiscation is sometimes just; socialism may have an element of truth in its composition. Why is graduation an indefensible confiscation? Why is graduation an indefensible part of socialism? Because, I reply, graduation is unjust; because graduation is a filching from rich men a payment for that which they do not receive; because it is a demand on rich men to pay a shilling for the loaf which men of moderate means are to get for ninepence. When I speak of graduation henceforth I will qualify it, not as confiscation or socialism, but as injustice. Yet I cannot derive this injustice from any principle but this—that each tax-payer ought to be assessed according to the cost incurred by Government in his defence.

I have enlarged to this extent on the principle in question, because all my argumentation is founded upon it. Among ourselves,

as in the fictitious colony, Government ought, as it seems to me, to levy, on each man, a tax such as to reimburse the cost of protecting that man from foreign and domestic enemies.

VI.—*Further application to our own Case. Some part of Government Expenditure is not for Protection. Permanent Improvements. Age of Tax-payer. Corollary, that uniformity from year to year is unnecessary. Tenure, &c., &c.*

I have already inquired how far, in an early stage of my fictitious colony, it would have seemed right to vary the rate of taxation according to the age of the subject, his tenure, the real sacrifice imposed on him, and other circumstances. I have stated my opinion, that in that state of society, no reduction would have been allowed on such grounds. But it remains to be seen whether the same unvarying rule is applicable to ourselves.

It must be remembered, that I am speaking here of taxation levied for the present expenses of Government; of taxation levied this year to furnish the ordinary expenses of this year; and especially that very large part of the year's expenses, which is incurred for mere protection, internal as well as external. I will afterwards show why I regard a small part of the annual expenditure in a different light, as what we may call superfluous; and I will at the same time give my reasons for thinking that the reduction of assessment which poor men may fairly claim in respect to this small superfluous expenditure, would be best made by deducting 100*l.* a-year from all assessments, instead of the present plan of assessing in full all incomes above 150*l.* a-year, and nearly in full, all incomes above 100*l.* a-year.

Now, as to taxation levied for the execution of permanent improvements, I repeat that men of considerable age, and men possessing only a short or precarious tenure in their incomes, would have a fair claim for reduction in case of such taxes. At the present moment we are busy with a system of fortifications; and these will not be so complete for many years as to be of any great advantage to us, while they will, in the long run, add much to the security of the property of the country. The course adopted of borrowing a large part of the necessary funds, properly divides the cost among a succession of people. If the whole funds had been raised by present taxation, it would, I think, have been unjust to impose an uniform rate on all persons, of whatever age or circumstances.

But to return to ordinary taxation for current public expenditure.

1. Ought an elderly man to pay less than a young man? In the colony, as I have shown, no such claim would be allowed. In the most simple stage, when each settler paid according to the admeasurement of his clearing, even the oldest man would not have

ventured on such a claim, because it would be manifest that his property would cost the authorities at least as much for protection as the young man's property would cost. When, from the necessities of a more complex state of society, income, instead of extent of land, came to be the measure, there would be nothing in the change to give the old man a claim for reduction, since the Government would still require everyone to pay for the protection he receives; and the cost of that protection would now be assessed, not according to the extent of the land, but according to the income it yielded. But this latter arrangement is just that under which we live. Each of us *ought* to pay taxes to such an amount as to reimburse the expense incurred by Government on his behalf, but the Government *cannot* render to each of us an account of the expense incurred on his behalf; it is agreed, therefore, that each shall pay according to his income. It is not disputed that this is a fair approximation to the truth, for men of the same age, and having the same tenure in their property. It is agreed that if two such men have 1,000*l.* a-year, and 10,000*l.* a-year respectively, the latter ought to pay ten times as much as the former. But if A and B have each 1,000*l.* a-year, A being a young man, and B an old man, the only pretence that can be set up for reducing B's assessment on account of his age, must be that B's age renders his property less costly to defend, a pretence that cannot be maintained.

If we take Adam Smith's illustration, and regard the country as a great estate, of which the young man and the old man are two of the joint proprietors, we arrive at the same result. Before any division of income from an estate, the whole expenses of repairs, insurance, and agency, must be deducted; and supposing these to amount, in any year, to 10 per cent. on the gross income, the old man, as well as the young one, would have his income reduced by 10 per cent. In the same way, each of us of whatever age, contributes under the income tax, in proportion to his ability, that is, in proportion to the revenue he receives.

I will just point out here, what is an obvious corollary of this proposition. It is generally said, in accordance with Mr. Warburton's opinion, that to make an undiscriminating tax fair, it ought to be levied at one uniform rate from year to year; and that to levy 6*d.* one year, 9*d.* a second year, and 1*s.* the third year, destroys the compensation which constitutes the fairness. But if the arguments and illustrations I have adduced, prove anything, they prove that this uniformity of rate from year to year is not necessary for fairness.

Everyone is bound to pay each year, the Government cost incurred in his behalf, during the year, just as every joint proprietor of an estate, is bound to pay each year, the current expenses of management during that year. The expenses of our Government

have risen even in times of peace, from fifty, up to sixty-five millions, just as the expense of managing an estate might rise in the course of years, from 10 up to 15 per cent. If the greater expense is really incurred for current management, and not for permanent improvements, the proprietors or tax-payers ought to defray the whole of it in the year; and the high rate is a misfortune which ought not to be thrown on posterity, or divided unequally among the present sufferers. I will point out, before I have done, what was the peculiarity of Mr. Warburton's reasoning, which led him to believe in the necessity of an uniformity of rate from year to year.

2. I conclude, then, that among ourselves, as in the colony, the age of the tax-payer ought not to be considered in fixing his assessment. I inquire now, whether a man's tenure of his property is in the same category. I have expressed my opinion, that in the colony, such was the case: that if a man had a clearing which would certainly be swept away in a few years, and might be swept away the next year, that would be no reason, in point of justice, for excusing him from paying this year, for the goods he bought or for the Government protection he received. Suppose, among ourselves, a sort of tontine, in which one class of proprietors had shares for five years; another class for ten years; a third for twenty years; a fourth in perpetuity; it certainly would not be expected by the five years' proprietors, that they should pay a smaller proportion of the current expenses, than was paid by the others, although as to permanent improvements, such a reduction might fairly be demanded. Nor can co-proprietors in the great estate of the nation, be permitted to pay different rates for the defraying of the current expenses of the State, on the ground that the incomes in respect of which they pay, are held on tenures of unequal length.

3. I inquired before as to the validity of other grounds on which it might have been proposed in the colony, to reduce the rate: as to the propriety of fixing the rate according to the capitalized value of the income; of taxing a man according to the expenditure he could afford; of excusing savings from taxation; of requiring from all persons, not the same proportion in money, but the same real sacrifice. It is quite unnecessary for me to go through these again one by one, because they may all be determined by the one principle, that everyone should pay in the year for what he receives during the year: and if, as I contend, that principle is true as to this country, as perfectly as it is true of the fictitious colony, the solution of all these problems is easy and certain. Once satisfied as to the principle, we must come to the conclusion that there is no validity in the grounds alleged for reducing the rate of taxation, when, as is commonly the case, the proceeds are to be applied to the current

kept up with great prudence, for the purpose of sustaining the social and political influence of the aristocracy. The practice is one with which I find no fault, because I believe that in our present condition, the subsistence of a territorial aristocracy is necessary to the security of our free institutions. But although the hereditary transmission of land and the custom of primogeniture are highly important to the public weal, yet the first and direct advantage is the one reaped by the aristocracy itself; and it would be a strange concession if we were to allow those who have continued and carried out this custom of primogeniture for their own benefit, to obtain also by its means, a remission of taxes.

Another claim set up for the landed interest is of less importance, and is founded on very different considerations. In Mr. Hubbard's scheme, submitted to the Committee, the rent of land is to be assessed at only eleven-twelfths of its amount; the other twelfth being allowed for inevitable out-goings. Unquestionably, it is the net, and not the gross income which ought to be taxed. But against the out-goings of one-twelfth, must be put the advantage gained by the landlord, from the fact stated to the Committee, that farmers' profits are too lightly assessed. Sir R. Peel reduced the assessment formerly made, and it is stated that, in cases of compensation, farmers estimate their profits at a much higher rate than that at which they are assessed to the income tax. But the lower the tax, the higher the rent which the farmer can afford to pay; and, therefore, this advantage may very well counterbalance the alleged taxation on out-goings. An allowance has to be made also for the fact, that, as no tax is levied on incomes under 100*l.* a-year, no farmer pays tax unless his rental reaches 200*l.* a-year, so that in some parts of the country little tax is paid by farmers. If, as I assume, the income tax falls, not very indirectly, on the rent, it is in the power of the landlord, by splitting his estate into moderate holdings, say of 200 acres or less, to put the tax into his own pocket. This should be remembered when it is proposed to lower the landlords' assessments.

Again, a considerable amount of discussion took place in the Committee, as to clerical incomes. The first great question was, whether clergymen who, of course, have their tithes only for life, ought to pay at a full or a reduced rate. If a clergyman has his tithes only for life, why should he pay more than a Government officer, or a trader, who has his income for life? On the other hand, it was contended that Government could not be robbed of its rights; and that land must pay the same tax in whatever hands the usufruct might be. For myself, I cut the discussion short, by saying that the Government cost of protection is the same, whether the usufruct is in lay or clerical hands; and that justice, therefore, requires the same payment.

One alteration, however, does seem necessary. A good deal of college and ecclesiastical land is let on the improvident custom of fines; and, as if to punish the corporations guilty of this imprudence, the authorities levy an aggravated tax. First, there is required from the recipient a statement of all fines received, and on the amount of these the full tax is levied. Next, the tax-gatherer goes to the land itself, and requires from the tenant the full tax on the estimated rental, the landlord having, of course, sooner or later, to refund the tax to the tenant. This reduplication of impost is quite indefensible.

Houses, again, are unfairly assessed. Mr. Hubbard, after careful inquiry, proposed that only five-sixths of the rack-rent should be taxed; the other sixth being left as a fund to cover insurance, repairs, and ultimate renewal. The evidence given by several experienced witnesses pretty well supports this estimate, regarded as an average. But it appears, that such an average is, in this case, unnecessary and unjust. A well-built villa of 100*l.* or 200*l.* a year, causes very little cost to the owner, when it is once let on lease to a respectable tenant: the rent, therefore, is nearly a net income. A small house, at 3*s.* a-week, with constant change of occupancy, and careless tenants, will often yield as little as 2*s.* a-week to the landlord. The allowance of one-sixth, which would be excessive for the villa, would be far too little for the cottage. Add to this, that in large towns, where the compounding of rates is a common practice, and a very useful one, the rack-rent includes all the local taxes, amounting sometimes, at the full rate, to 6*s.* or 7*s.* in the pound; and that it is on this rack-rent, including rates as well as repairs, insurance, and renewal-fund, that the income tax is levied. There are two obvious modes of correcting this injustice; the one is, to put landlords into Schedule D as traders; the other, a more simple one, is, after deducting all local taxes, to make an abatement in an inverse ratio to the amount of rent; giving the greatest percentage of abatement to the lowest rent. A differential scale could easily be constructed.

Mines and quarries also are treated very roughly. It is astonishing to find one of the witnesses proposing, as a piece of justice not to be hoped for, that the proprietors should be allowed to pay tax on the net income they receive. At present, it seems, a sum of money is spent in Cornwall in opening a mine: for a time there is no return; as soon as the sales of ore amount to something beyond the present working expenses, that excess is reckoned as profit, and is taxed to the full amount, without any allowance for past losses, or for a replacement of the capital invested. When the mine is worked out the capital is gone; and if the speculation has been successful enough to replace it out of the dividends, the owners have paid income tax

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on the whole of the replaced capital, as well as on the net income produced.

The holders of foreign funds seem, on the general principle of justice I before laid down, to be entitled to ask relief. The protection which a holder of French *Rentes* receives in respect of that property, comes principally from the French Government; and our Government cannot fairly claim a payment for expenses which it has not incurred. Our own practice, too, condemns us; for the French holder of Consols pays income tax here on his dividends; and if the French Government were to levy an income tax, and to follow our precedent, the unfortunate French holder of Consols would pay the full tax twice; once in London and once in Paris.

One other matter was greatly discussed in committee: the treatment of purchased terminable annuities. But before saying anything on that topic, I will just mention two cases of actual exemption, and the evidence given upon them.

First, as to life insurance. Some years ago, the alleged unfairness of fully taxing temporary or precarious incomes, was much discussed. As the necessity of saving from such incomes was greatly insisted on, an Act was passed, exempting persons from tax on that part of their incomes, up to one-sixth of the whole, which they paid as premiums on life insurance; and about four years ago the same privilege was extended to persons insuring with legally authorized friendly societies. The claims under these two heads, in Schedules A, B, and C, were no less than 22,555 in one year; and the amount of tax returned was nearly 25,000*l.*, or rather more than 1*l.* for each claim, on the average. If the principle of justice for which I am contending were alone to regulate the tax, this exemption could not be maintained; because Government had incurred the same expense in protecting the incomes of the insurers, as in protecting the incomes of their less provident neighbours. But the practice of life insurance is so very valuable a one, and is of such national importance, that I cannot regret the concession on that score, of the moderate sum of 25,000*l.*, to the Schedules I have mentioned.

The second exemption is of a very different kind. We all know that traders are required to make their returns each year on the average of three previous years' profits. But by the 133rd section of the Act it is provided, that if the profits of the past year are less than the average profits of the three preceding years, the trader shall pay only on the last year's profits; so that if in a variable business, my profits for the last three years had been 9,000*l.*, or 3,000*l.* a-year, and my profits for the last year had been only 100*l.*, I should have to pay on only 100*l.* Mr. Hubbard, in his "Observations," gives an example of the tax actually paid by a mercantile house during ten years; and it appears, that while the triennial average was nearly

8,000*l.* a-year, the assessment was only 4,000*l.* a-year,—just half of what fundholders and landowners would pay if enjoying the same income. No doubt, there are to be found traders who have an eye to this clause, in making up their balance sheet. The exemption appears to me quite indefensible.

IX.—*Terminable Annuities. Charge for Life on an Estate. Purchased Terminable Annuities. The Dead Weight. The Principle of Terminable Annuities. Cases of avowed Evasion. Lands Improvement Company. Mr. Newmarch's Cases. Mr. Gladstone's defence of Present Practice. Improvidence of that Practice. Case of Life Annuities not so plain. Supposed Case of Two Sisters.*

I now come to the topic of terminable annuities purchased for a sum of money. In the House of Commons' Committee, vast discussion and wonderful ingenuity were exercised on this topic. Witnesses were harassed with captious questions and insoluble problems. Yet, it seems to me, after reading the evidence at my leisure, that no new light was elicited; that the purchased annuity is clearly divisible into interest and a replacement of capital; and that, so long as landlords, fundholders, and traders are taxed, on income only, and not on principal, so long ought annuitants to be treated in the same way. The only objection fairly sustained by the evidence, related to life annuities, bought with principal but not with capital, and bought with the intention that the whole annuity should be spent as it accrued. As to the taxation of such life annuities, there is room for conflicting opinions.

It is essential to keep carefully in mind, that we are here concerned with purchased incomes only. It is natural enough to apply the name annuity to every income payable annually, or at shorter periods—fractions of a year. We speak of an annuity payable by a landowner to his mother or sister.

Some members of the Committee inquired curiously, whether, in case of a discriminating tax, a sister enjoying an annuity charged on the rents of an estate, ought to pay the full rate, or the reduced rate of tax. The general, but not universal answer was, that she should pay the full rate, because the annuity was merely a share of rent, and the Government could not be debarred, by any private arrangement, of its claim to a full rate upon the rent of land. Those who agree with me, that the tax is merely a payment for protection, will say, that as the creation of the annuity in nowise relieved the Government of the cost of protecting the land, so it could not relieve the owner or owners of the land from the obligation of paying tax just as if no annuity existed. But the real question seems to me to lie between the brother and sister; and to be, whether, after the brother

had paid the full tax on the whole rental, he was entitled to stop the full rate from his sister. Dr. Farr and the Actuaries, who contend for a capitalization of income, would say, I presume, that he ought to stop only the reduced rate; and that, as reversioner, he ought to sit down with the loss of the difference.

At present, however, we are concerned only with annuities purchased for a sum of money. Mr. Hubbard brought before the Committee a well-known example of Government annuities. When the income tax was imposed, in 1842, the Government was paying, in long annuities, an annual sum of 1,300,000*l.*; the payment was to cease in 1860; the principal represented was 17,500,000*l.*; the income tax being imposed on the whole of the annuity has since been paid to the full; the result being, that between 1842 and 1860 there was paid, in respect of these annuities, no less than 600,000*l.* beyond what would have been paid, if the same capital had been invested in Consols. This sum of 600,000*l.* we must say, I fear, was unjustly appropriated by the Government for the public service. No one will suppose that Sir R. Peel, when he constructed his budget in 1842, intended to act unjustly; nor can his successors be much blamed for following in his steps, while they can shelter themselves under the plea that many men of distinguished ability deny the alleged injustice.

The principle of terminable annuities is so well known, that it is almost superfluous to advert to it. Say, first, that I borrow 10,000*l.* and undertake to repay it by instalments of 1,000*l.*, with 5 per cent. interest on all capital remaining unpaid. The first year I pay 1,500*l.*, the second year 1,450*l.*, the last year 1,050*l.* But it is agreed, on borrowing a second 10,000*l.*, that instead of these diminishing amounts, I shall pay an uniform sum each year; a sum, viz., somewhere between 1,050*l.* and 1,500*l.* Now, while the original agreement was in force, the sum I paid in the first year was 1,000*l.* of it principal, and 500*l.* interest; in the last year the principal paid was still 1,000*l.*, the interest being only 50*l.* And there would be no more pretence for taxing each payment of 1,000*l.* principal, than there would be for taxing the whole 10,000*l.* principal, if it had been repaid in a lump at the end of the ten years. But under the second agreement, when I pay an uniform sum every year, the principal is just as much repaid during the ten years as it was under the first agreement. At the end of the tenth year, the lender has got back his 10,000*l.* principal, with 5 per cent. interest on the principal remaining unpaid each year. Yet, in this second case, the Government levies the tax on everything received, that is, on principal as well as interest.

The attention of the Committee was directed to the Drainage Act, in illustration of the principle in question; and several cases

were adduced in which an avowed evasion of the Act exhibited the unfairness of its application generally. The first case was that of the Lands Improvement Company, which was constituted under an Act of Parliament, in 1853. The managers, finding it advantageous for the borrowers to refund their loans by uniform payments during twenty-five years—that is, by a terminable annuity,—and being advised that, notwithstanding a clause in the original Act, they would not, without litigation, escape a tax on the whole annuity, resolved to apply to Parliament for an explicit exemption from tax on that part of the annual payment which was a refunding of principal advanced; and they succeeded in their application. Mr. Napier furnished the following particulars:—

“ At that time we were lending money at $4\frac{1}{2}$ per cent. of simple interest, or 6*l.* 14*s.* per cent. of periodical payment; 6*l.* 14*s.* per cent. for twenty-five years, paid back our capital, with interest at $4\frac{1}{2}$ per cent. If the 7*d.* in the pound was deducted from the whole half-yearly payment of 33*l.* 10*s.* 5*d.* upon the 1,000*l.* for twenty-five years, the entire deduction, at the end of twenty-five years, would be 48*l.* 18*s.* If the income tax were only deducted upon that which we contended was right, namely, upon the interest of our money, it would be 19*l.* 14*s.* 4*d.*; so that, in fact, we were to be taxed at the rate of nearly 3 per cent. upon our capital, and instead of getting back our 1,000*l.*, we got back 1,000*l.* less 30*l.* Such a state of things, of course, would have made it impossible to have continued our business.”

Mr. Napier might have added, that when the income tax was doubled, the company's loss would have been 6 per cent. on its capital. However, in 1855, an Act was obtained exempting the company from tax on capital, and since then the assessment has been justly made on interest alone.

Another illustration was furnished by Mr. Newmarch, who showed how a lender might, without the shelter of a special Act, evade payment of tax on the principal refunded in an annuity. Mr. Newmarch gave two examples. The first case was a loan of 30,000*l.*, at 5 per cent., secured upon a life estate, for which loan the borrower was to pay an annuity, for seven years, of 5,642*l.* 14*s.* 6*d.* When the money was advanced, the lender divided the stipulated annual payments into three portions: one for repayment of principal, a second for payment of premiums on life insurance, the third for payment of interest. By means of this clear separation of the elements of the annual payment, the tax-gatherer was compelled to limit his assessment to the interest, amounting during the seven years to 5,864*l.* 1*s.* 3*d.*: in the absence of such separation of the elements he would have assessed the whole amount paid, which

during the seven years was nearly 40,000*l.*, or almost seven times the actual assessment.

Mr. Newmarch supplied another schedule, showing an equally successful evasion of this unjust impost. In this case, the sum of 5,000*l.* was advanced on a mortgage of county rates; and the repayment was covenanted to be made, not by equal annual instalments, but by equal annual payments of 250*l.* principal, and 5 per cent. interest on principal owing. This was not an annuity in form, though it was such substantially.

All these cases are founded on the maxim, that principal ought not to be taxed in annuities, so long as it is not taxed in land, mortgages, and funds. It is much to be desired that that should be done for all, by law—which is now done for a few, by astute but just evasion.

Mr. Gladstone, by questions which he put, suggested an attempted defence of the present practice. He mentioned certain Government annuities created in 1855 for thirty years; and asked whether, as in that year there was an income tax of 1*s.* 4*d.* in the pound, the purchasers of those annuities did not take the tax into account in the price they paid. Mr. Hubbard replied, that the tax was to have ceased in 1860; and that in the five or six earliest years of the annuity, the principal repaid, and the consequent tax upon principal, would be very trifling. But even if it were otherwise, this would be no mitigation of the injustice committed towards the holders of the annuities which expired in 1860, and which had been purchased so long back as 1823; a period too near the conclusion of peace and the then passionate repeal of the hated income tax, to allow any thought of the renewal of such a tax. It is true, generally, that every formalized injustice is partly corrected by the efforts of the sufferers; but it does not cease to be an injustice.

But there is improvidence as well as injustice in this tax upon capital, and indeed there is improvidence in every money transaction which is tainted with unfairness. In the case of the loan of 1855, Mr. Hubbard contended that that part of it which was borrowed on terminable annuities, was a very extravagant bargain, as the interest to be paid, the actual price of consols being considered, was no less than 5 per cent. Now as terminable annuities are in practice the only available sinking fund, and as it is highly desirable that we should be constantly extinguishing a portion of the capital of the national debt, it is unfortunate that the error of Sir R. Peel, uncorrected at present by his successors, should have made it impossible to borrow on terminable annuities at a low rate. It would seem to be the true policy of the treasury, to take measures for giving to terminable annuities such facilities of transfer, and such clear fairness of taxation, as to secure to them something like the same currency

with Consols. So far is this from being the case, that as Mr. Hubbard informs us, the Dead-Weight was at one time unsaleable.

I have already said, that the topic of *life annuities* purchased with money, is more open to discussion. It is true, no doubt, that the periodical payments may be separated into interest and repayment of principal; and that to tax the whole annuity, involves a tax upon the original purchase money. On the other hand, such annuities are generally bought as incomes to be spent. Now, under the system of taxation, direct or indirect, on expenditure, a system which preceded the income tax, and which will, no doubt, replace it whenever it ceases, the holders of life annuities had formerly, and will again have, to pay on the whole of their income; and as they had resolved to turn principal into income and to leave no fortune behind them, the purchase of life annuities is merely the accidental form of carrying out their resolution. The case is the same as if they had reckoned how long they had to live, and had spent a portion of their principal every year; and under this arrangement, the whole of their principal would have had to pay taxes on expenditure, if no income tax had been imposed. The holders of these annuities therefore, so far as they spend the whole of their incomes, are no poorer in consequence of the recent substitution of an income tax in place of expenditure taxes. Their annuities in short, were bought with principal but not with capital: with stock set apart for self-maintenance, not with stock set apart to be used in business.

The circumstances are quite different when the bank buys annuities for a term of years. The price here consists of an advance of *capital*, and in the absence of an income tax, the income annually received by the bank would not pay expenditure taxes, because that part of it which replaces the purchase money is capital, and is set apart to be again employed in business. I repeat, therefore, that the case of life annuities is open to dispute, if, as I assume, they are generally bought with the intention that they should be used as self-maintenance.

In the course of Mr. Newmarch's examination, Mr. Gladstone put to him a highly ingenious problem, to show that a reduction of the tax on life annuities would be unfair. He assumed that a gentleman had twin daughters: that he provided for the one by buying for her an annuity of 1,000*l.* at the National Debt Office, and for the other by a charge on his estate of 1,000*l.* a-year. Under the varying rate, the purchased annuity would pay a reduced tax; the charge on the estate would pay the full tax. Yet both the incomes are for life only, and both, in the absence of an income tax, would be worth the same sum in the market.

The Government, no doubt, as in a former case I adduced, ought to require the full tax from the possessor of the estate, because the

protection afforded ought to be paid for. I think also, that the possessor of the estate is justly entitled to deduct the full tax from the annual payment, because the sister is virtually an owner for the time being. But I have already expressed my doubt whether the sister who had a Government annuity, ought not on other grounds to pay the full tax.

But if we suppose that the two annuities were created on the lives of the sisters, in favour of the Bank of England and for a term of years, then the problem regains its significance. The solution seems to be, that if the creator of the annuities chooses to secure one on a property, the protection of which is more expensive to Government than is the protection of the other, the annuity secured on the expensive property must suffer accordingly. The father ought to buy a somewhat larger annuity to cover the difference.

This problem of the two sisters, was afterwards taken up by Mr. Lowe, and much of the time of the Committee was occupied with it, without any perceptible addition to the truth discovered.

X.—*Strictures on Distinguished Opinions. Mr. Warburton's Uniformity from Year to Year not really necessary. Purchased Annuities. 2. Dr. Farr's and the Actuaries' supposed Redemption as Illustration. Ought to Capitalize the Tax as well as the Income. 3. Mr. Mill's—that should not Tax Savings. Possible Result. But Savings are not made by Persons of precarious Incomes generally, because these are insufficient. A Surplus is necessary before People can save.*

It remains for me to make a few remarks upon the opinions propounded on this intricate topic, by several of the most distinguished statisticians.

1. I have already referred to the evidence given by Mr. Warburton, and reported in June, 1852, to the House of Commons. It has been commonly stated, and as I find, accurately stated, that Mr. Warburton regarded it as an essential feature of a just income tax, that the rate should be uniform from year to year. The actual tax, if 7*d.* one year, 9*d.* another year, and 1*s.* 4*d.* a third year, was, according to him, utterly unfair. If this opinion be true, the tax is condemned past redemption; since it would be found impossible to levy an unvarying tax to supply the variable needs of war, of peace, and of armed neutrality. The peculiar excellence of an income tax is its elasticity, and its consequent fitness to fill up an occasional gap in the exchequer; thus preventing the necessity of disturbing the relations of commerce by temporary augmentations of custom duties. Make the tax uniform from year to year, and you destroy the usefulness it possesses.

But this uniformity, as I have already noticed, is, on my principle, unnecessary for the demands of justice. Where the proceeds are to be applied to the current expenses of the year, and not to the execution of permanent improvements, I see no reason why the rate should not vary, as the demands of the treasury vary. Government lays out a certain sum this year in protecting the nation's great estate; that sum should be raised during the year: a smaller sum will be laid out next year; the smaller sum should be raised.

This difference of opinion, as to the necessity of uniformity in the annual rate, goes to the root of the matter. If such a necessity exists, an income tax always has been, and perhaps always will be, entirely unjust.

In another respect, Mr. Warburton seems to me mistaken; I mean in allowing no distinction between purchased terminable annuities and incomes from other sources. To him an income is an income, and must be taxed while it lasts.

2. As regards Dr. Farr and the Actuaries he represents, I have already given my reasons for dissenting from their views. These are clearly stated by Mr. Hume in his proposed report to the House of Commons, in June, 1852.

	Assessed Value.
	£
" A has 1,000 <i>l.</i> a-year in long annuities	6,875
" B ,, in Consols, at par.....	33,333
" C ,, from land, worth 30 years' purchase	30,000
" D ,, from land, during his life.....	16,667
" E has the reversion of rents of 1,000 <i>l.</i> a-year after the death of D	16,666
" F has houses returning in current rents 1,000 <i>l.</i> a-year	16,000

" These values serve to represent the sums for which such annuities, rents, securities, and estates, which are all designated property, would sell; and they also express the extent of loss against which the holders are protected by the laws and institutions of the country. Your Committee repeat, that they know of no more accurate indication of the ability of the respective proprietors to pay the tax, than is furnished by the values of their respective properties."

The first item—the income from purchased terminable annuities—has been already fully discussed. The reasoning as to the other items may be tested by a supposition of Dr. Booth's paper, recently published in the *Statistical Journal*.

Let us imagine that Government proposed to the owners of these various incomes, to redeem their income tax; that tax having been made permanent at 1*s.* in the pound. What sum would each person pay? The owner in perpetuity of the land would pay thirty years' purchase; the holder of Consols thirty-three and one-third years'

purchase; the house owner sixteen years' purchase. The supposed reversioner of an estate would properly pay his sixteen and three-fifth years' purchase, in consideration of having his estate free of income tax when he should get possession at a future day. Such a composition would be perfectly just, on the supposition of an uniform annual rate in perpetuity; and uniformity in the annual rate would be necessary to make the composition just. Mr. Hume's schedule, excluding the long annuity case, which stands on ground of its own, would be a safe guide to the authorities who arranged the composition; yet, as it seems to me, it has no bearing on the question—what each person ought to pay annually in the absence of a composition.

But I will carry this fictitious redemption one step further. It might be inconvenient to some of these persons to lay down so large a sum as thirty or sixteen years' purchase of the tax; and an option might be given to pay a fixed annual sum in perpetuity. What would each pay? The owner of Consols would pay the most, because the Consols are arbitrarily set down at par, while the land is set down to yield $3\frac{1}{3}$ per cent. But if we say that the land and the Consols yield the same rate of interest, viz., 3 per cent., then each of them will be taxed at 1s. in perpetuity. The life tenant of the land and the reversioner would make up the 1s. between them. In short, the perpetuities would pay just as they do now. But the temporary incomes are differently circumstanced; if they are to pay in perpetuity, their rate must be lower. The owners of houses which were worth sixteen years' purchase would pay at 6d. in perpetuity. We might add to these a professional man, with an income worth eight years' purchase, and who would pay at 3d. in perpetuity.

This arrangement, however, would not be feasible; because the physician would have no security to give for the payment of the composition after his death; and the houses would furnish security for their owner, for a term of years only, and not for a perpetuity. These temporary incomes, therefore, must necessarily pay either a composition at once or an annual rate so long as the incomes subsist; and this annual rate will be precisely 1s. in the pound. The present value of 1s. in the pound annually on the houses is 16s.; the present value of 1s. in the pound annually on the medical income is 8s.; and these present values of the tax which the owners of these incomes will annually pay, bear the same proportion to the present values of the tax which the owners of land and Consols will pay, that the present values of the houses and medical fees bear to the present values of the land and Consols. Dr. Farr seems to me to have made a fatal error, in overlooking the fact, that when he capitalized the annual values of the properties, he ought also to have capitalized the annual taxes paid upon them.

3. Mr. J. S. Mill's opinions are worthy of particular attention. He is strongly opposed to Dr. Farr's plan, as involving palpable arithmetical fallacies. His own leading conception is, that savings from income ought not to be taxed; because, when invested, they yield an income which will itself be subject to tax. A curious case might occur under such a rule of exemption if carried out individually. A man might have a property of 1,000*l.* a-year; and saving the whole of the income, and reinvesting at 5 per cent., he might, in a long life, increase his property to 10,000*l.* a-year, without ever having paid a penny for the protection afforded to it by Government.

To this opinion of Mr. Mill I have already objected. If I have this year an income of 1,000*l.*, I ought to pay the expense incurred by Government in protecting that income. The fact of my having saved 500*l.* of it, has in nowise diminished the Government expenditure on my behalf; and if, next year, my income is increased by 25*l.*, I ought to pay for the protection of this 25*l.*

But even if savings ought not to be taxed, how are we to assess them so as to grant the exemption? Mr. Mill confesses that it is impossible to deal with each case *individually*; but he thinks the principle may be applied to *classes* of persons. He contends that certain classes may be *presumed* to save; these classes consisting of persons who have the strongest motives for saving, in consequence of the temporary or precarious nature of their incomes. He would exclude, however, the life tenants in settled property.

Mr. Mill's first proposition then is, that savings ought to be exempted. But he exhibited in his evidence a decided wish that professional men should, if possible, have a greater reduction on their whole incomes than traders. He was asked whether he desired this on the ground that the savings from professional incomes are greater than the savings from trading incomes. He confessed that professional men do not save a greater proportion of their incomes than traders save. But as he would deal with classes, not with individuals; and as the class of professional men has the stronger inducement to save, in consequence of the more precarious character of the income earned; he would *presume* that professional savings exceed trade savings, and would wish their taxation reduced accordingly.

Now it may, perhaps, be thought impossible to prove that one class saves a greater proportion of its income than another class; though I have no hesitation in saying, that within my own range of observation, numbers of fortunes are saved by traders, and few indeed by professional men; almost nothing by divinity, little by medicine, an occasional fortune by law. But if Mr. Mill had heard the evidence given by other witnesses, he would have been slow in

founding any argument on a presumption flatly contradicted by the testimony of competent judges.

The Committee examined three medical men—Mr. Lewis, Mr. Fergusson, and Dr. Webster. All these gentlemen strongly advocated the claims of the Faculty. In order to support Mr. Mill's presumption, they ought to have asked for a reduction of the tax of their brethren on the ground, that in consequence of the temporary and precarious character of their incomes, they were obliged to save a large proportion of them; and that these savings ought to be exempted. I am sincerely sorry to say that their argument was a very different one. Instead of dwelling on the savings effected by the Faculty, these gentlemen asserted that the incomes earned are generally miserably small; and that it is so late in life before a man gets so much as a decent maintenance, that to save at all was impossible; and that only a small number even of life insurances are effected. If, therefore, savings are to constitute the ground of reduction, medical men are out of court.

Evidence again, was given as to the solicitors of the kingdom. Mr. Cookson, President of the Incorporated Law Society, said that the greater number of the profession have very limited means. He stoutly fought their battle for a reduced rate; but he did not rest their claim, as according to Mr. Mill, he ought to have rested it, on the ground that the temporary and precarious character of their incomes caused them to save a large proportion of them; and that these savings ought to be tax free until they were invested. He rested their claim on the ground, that of the 10,000 attorneys in England and Wales, 9,000 feel painfully the pressure of the tax; and he demanded relief, not for 1,000 richer members, by whom, no doubt, the savings of the profession are effected, but for the 9,000 poorer members whose capital is so small, that they are obliged to ask their clients before-hand for any heavy fees to counsel or any considerable probate duty; and who earn so little that a marvellous number of them apply for any vacant clerkship or secretaryship. It is useless for Mr. Mill to *presume* savings, when there is direct evidence that they do not exist.

No evidence was tendered as to the working clergy: but all who are acquainted with the subject, will agree, that in no other class is there a more life and death struggle with poverty. A clergyman is *ex officio* a gentleman, and is bound to make a decent appearance, and to bring up his family as ladies and gentlemen. Ask any one who goes behind the scenes, who knows something more than the outside suit of decent black, who has to do with schools for the families of clergymen, who is concerned with societies privately conducted, for distributing to the most necessitous (I blush to mention it) the cast off clothes of the laity; and you will be fur-

nished with tales of distress that are appalling. As to savings for the future, men do not put by part of their income until they have provided the necessaries of life. Men buy bread and clothes in preference to Consols and India Bonds.

Mr. Mill, I think, in presuming the fact of savings on the part of persons having temporary or precarious incomes, overlooked a highly important feature of the case. That *other things being the same*, such persons are more bound to save, and are more likely to save, than are the possessors of permanent incomes, is undeniable. But other things are not the same. The evidence I have quoted shows that, as regards professional men, the temporary and precarious incomes are also in most cases, small incomes. Now, in order to effect accumulation, there must be not only the motive to save, but also the means of saving; there must be not only the desire to accumulate, but also the surplus income from which to accumulate. A labourer on 15s. a-week, with a wife and a young family, can scarcely save anything, and ought not to save anything considerable, because he cannot do so without cruelly pinching his family. To live worse than a pauper now, lest one should become a pauper hereafter, is a folly. A clergyman on 150*l.* a-year, with a wife and family, can save only by living like a miser; by sacrificing present life to the future means of living. To presume savings from the labourer and the clergyman, from men steeped in poverty, is to overlook the facts of every day life.

Another objection to Mr. Mill's opinions, and one urged upon him in Committee, was this:—that as savings are in fact, made generally by persons with surplus incomes, and not by persons with narrow though precarious incomes, the result of exemption granted to actual savings would be to benefit the comparatively rich. But if for this reason, *actual* savings ought not to constitute a ground for exemption, *presumed* savings certainly cannot constitute such ground.

XI.—*Mercy as well as Justice required. Present Exemption of Incomes under 100*l.* a-year; Justice of this. Proposed Deduction of 100*l.* from all Assessments. Graduation an apparent result: Answer. My own Inconsistency.*

Such, then, appears to me to be the justice of the case. Having regard to justice only, and excluding the small part of the Government expenditure which is directed to purposes other than protection of the subject, taxes ought to be levied in proportion to the incomes enjoyed under the protection of the State. But justice is not the only principle on which Government is conducted and ought to be conducted; mercy is as much the duty of nations as of individuals. Nor can it be alleged that in the administration of this country mercy has been forgotten; the six or seven millions

annually spent in relief of the poor, are sufficient to rebut such an accusation.

But this quality of mercy, which the nation strains so far as to save the unthrifty, and even the dissolute, from the resulting destitution, ought to be extended to the really poor among the middle classes; and it is so extended when persons having less than 100*l.* a-year are exempted from income tax. There would be a real hardship in taking this tax from the middle classes of a lower grade of fortune than this; for it is a harsh, unbending tax, and sins against Montesquieu's advice, so to levy taxes that they shall be little felt. A destitute family can avoid many expenditure taxes, by confining its consumption to the necessities of life; but the arbitrary demand for so many pounds, shillings, and pence, must be satisfied.

And I think there is more than mercy in the case. I have hitherto regarded the Government expenditure as incurred for the protection of the subject; and so it is principally, but yet not entirely. There are local rates for the relief of the poor; ought the middle class poor to be made to contribute? A considerable sum is spent by the general Government, and most usefully spent, in promoting education. Is it right to call on the poor surgeon, and the poor clergyman, and the poor widow, to contribute to the education of the labourer's children, when they are at their wits end how to educate their own children? Our army and navy, again, are principally employed in securing us and our dependencies from violence, but not altogether; some part of their expenditure is incurred, and long may it be incurred, in promoting the greatness and glory of the nation. Now a poor solicitor, or a poor tradesman, may be as patriotic as his richer neighbour; and yet he may feel that until his family is decently provided for, no part of his means ought to be diverted even to so good an object as the greatness of his country. Money laid out for his protection he ought to repay, but he may be excused if he claims to be exempted from taxes to supply what he must regard as the superfluous expenditure of the Government. The means for that expenditure ought to be supplied by persons of competent incomes. Now, if the whole national revenue were supplied by one tax, it would be necessary to reduce the rate on small incomes; but as only a small part of the revenue is supplied by the income tax, it is right to exempt small incomes altogether.

Many persons however, are dissatisfied with one part of the manner of exemption. A man with 105*l.* a-year feels it very hard that he should pay 2*l.* to 4*l.*, while his neighbour with 100*l.* a-year pays nothing. On the face of the subject, it appears that the fair arrangement would be to tax every one on the excess above 100*l.* a-year, so that 105*l.* would pay tax on 5*l.*; 200*l.* would pay on 100*l.*; 1,000*l.* would pay on 900*l.*

This obvious and hackneyed alteration, was mentioned in Committee, but was not much discussed. The principal objection made, was, that the alteration would cause a great number of claims, so small as not to be worth enforcing. At the present rate of 9*d.* in the pound, an income of 105*l.* would pay only 3*s.* 9*d.* Too much was made of this. I have noticed that such small matters as Easter Dues and Vicarial Tithes are regularly collected, though some of the claims may not exceed 1*s.* Traders also, collect all their accounts, however small some may be. The explanation is this:—all who have paid considerable rates or taxes, know that it is the considerable amounts which are first looked up, in order that the collector may soon pay in a large proportion of his whole liabilities. Then the moderate amounts are got in; and, last of all, when the collector has time of little value, the half-crowns and shillings are carefully gathered up.

But there is another consideration of a more serious character; and that is the alteration of incidence which would follow the proposed mode of exemption. The relief granted to the income of 105*l.*, would cause an additional burden to some one. The reduction of all assessments by 100*l.*, would cause so great a diminution in the proceeds of the tax, that a higher rate would have to be imposed. The income of 105*l.* therefore, would not gain the whole exemption on 100*l.*, because he would pay at a rather higher rate than before on the 5*l.* still assessed; this, however, would be a trifle. The income of 1,000*l.* being assessed at only 900*l.*, would escape one hundred ninepences, but would pay a much larger sum than this 3*l.* 15*s.*, because he would be charged at a higher rate on the 900*l.*

There is a certain boundary, somewhere between 100*l.* and 1,000*l.*; and all incomes on one side of this boundary would be gainers by the proposed exemption; all the incomes on the other side would be losers. For the sake of illustration, say that the loss to the revenue being about a million, it would take another 1*d.* of income tax to replace it, so that we should now have to pay at 10*d.* instead of at 9*d.* Then neglecting the present reduction on incomes between 100*l.* and 150*l.*, the man who has 105*l.* a-year, and now pays 105 ninepences (or 3*l.* 18*s.* 9*d.*), would then pay five tenpences (or 4*s.* 2*d.*), and would be a gainer of 3*l.* 14*s.* 7*d.* The man who with 1,000*l.* a-year now pays 37*l.* 10*s.*, would still pay 37*l.* 10*s.* All persons having a less income than 1,000*l.* a-year, would be benefited; all persons having more than 1,000*l.* a-year, would be injured. An income of 2,000*l.* would pay 4*l.* 3*s.* 4*d.* additional; an income of 10,000*l.* would pay 37*l.* 10*s.* additional.

If, still for the sake of illustration, we state the loss to Government by the change at something more than two millions, we should be taxed at 11*d.* in place of our present 9*d.* When I assumed the

additional tax at 1*l.*, I found that the boundary line between the gainers and the losers was 1,000*l.* a-year; now I assume the additional tax at 2*l.*, I find that the boundary line is 550*l.* a-year. All persons with incomes under 550*l.* would be gainers, all with incomes over 550*l.* would be losers.

It must be confessed that a plan which calls upon rich men to pay more in order that poor men may pay less, and not only to pay more, but to pay a larger proportion as the income increases, has something of the odious appearance of graduation; and it would require careful consideration, before we adopted any plan, which seemed to countenance the notion, that there should be one price of Government protection for the rich and another price for the poor. But, on the other hand, it is one thing to adopt graduation as one of the canons of taxation, and another thing to accept graduation in a particular case, as an incidental result of a scheme otherwise desirable. Besides, I recommend this plan of exemption altogether on the score of justice; we also abstain from graduation on the score of justice. It can hardly be true, that the exemption is just, and the graduation it involves is unjust. The explanation, I believe, is this:—the owner of 2,000*l.* a-year would have his assessment increased by the exemption; the owner of 10,000*l.* a-year would have his assessment increased in a still higher proportion. But the standard by which the increase is measured, is the present assessment, and this present assessment I hold to be unjust, because it over-taxes small incomes from 100*l.* a-year upwards. If this unjust assessment had never been made, no comparison would have arisen between it and the new assessment.

If, then, this apparent graduation may be disregarded, we should do well, I think, in adopting this simple plan of taxing everyone on the excess of income above 100*l.* a-year. This would give all the relief asked for by Mr. Cookson and others, on behalf of the lower class of incomes; and it would justly excuse the poorer of the middle classes from contributing to that part of the Government expenditure, which such persons may fairly regard as superfluous, however desirable.

Finally, I may be asked how I can reconcile my present opinions with those I professed last year. I am obliged to confess that I cannot reconcile them. In one respect only am I consistent; I *then* differed from Mr. Warburton, I *now* differ from Mr. Warburton; but even this degree of consistency is purely a matter of accident. The essential difference between my two sets of opinions is easily explained. I did not then apprehend the principle on which all my present argumentation is founded; the principle that every man ought to pay taxes in proportion to the cost incurred by Government for his protection.

XII.—*Summary.*

In a paper which I read before the Statistical Society, in April, 1861, I maintained the opinion that the income tax ought to be a discriminating one, and ought to be levied at a different rate on temporary and on permanent incomes. I still think that the income tax ought to be a discriminating one, but in a different mode, as to different classes, and for different reasons. After reading the evidence before the House of Commons' Committee, I am of opinion that the most useful measure of relief would be simply to deduct 100*l.* a-year from every assessment whatever, so that an income of 105*l.* should pay only on 5*l.*

The ground on which I rest my case is this:—I divide the whole expenditure of Government into two unequal portions, the larger consisting of that part necessarily incurred for the protection of person and property, both from internal and external depredators; the smaller consisting of that part, advantageously but not necessarily incurred, for education, for promotion of the fine arts, for the pomp and glitter of royalty, for the maintenance and increase abroad of the greatness and glory of the nation.

1. The necessary expenditure is by far the larger portion, if we include in it the interest on the national debt, nearly all of which was contracted with more or less wisdom and more or less frugality, in external military and naval operations. Persons who hold that this debt was unjustly or improvidently contracted, may regard part or the whole of the interest as belonging to the head of superfluous expenditure.

Now, I hold that everyone ought to reimburse to the Government that part of the necessary expenditure which is incurred on his behalf. What that part is, it is impossible to calculate individually; it is assumed that it is proportionate to each man's income. Further investigation may show that an *earned* income involves more cost to Government than an *independent* income costs—or the reverse may be the case.

The error that has vitiated most reasonings on this topic, is this: Assessments having been made in proportion to men's incomes, it has been inferred that the burden ought to be laid on in proportion as persons are able to bear it; whereas, as I contend, the income is taken merely as the nearest measure of the cost incurred by Government on such man's behalf.

This principle of justice—this rule that each man should pay for Government protection just as he pays for the commodities he buys, does away at once with all the proposals to modify assessments according to age, tenure of income, and savings effected or presumed; because an old man, a man of temporary income, or a frugal

man, causes just as much present cost to the Government, as a young man, a man of permanent income, or a man who spends his income.

Much light is thrown on this part of the subject, by dividing Government expenditure into the current expenses of the year, and permanent improvements, such as fortifications. The arguments used in favour of modifying the assessments of old men, &c., have great force as applied to permanent improvements effected by Government.

Another inference is inevitable. It has been held by Mr. Warburton and others, that an undiscriminating tax is just, but only on this condition, that the rate should be uniform from year to year. Clogged with this condition, the opinion has no practical value; since the income tax has not hitherto been uniform from year to year, and is not likely to become so. My view of the principle of taxation does away with this apparent necessity for uniformity.

2. Now, as to that part of the Government expenditure which persons of narrow means may fairly regard as superfluous, I hold, with regard to local rates, that persons of very limited means ought to pay for police, for administration of justice, for cleansing of streets; because the cost of these things is incurred for the benefit of all; but I cannot see the justice of rating such persons for the relief of the poor. The poor law funds ought, I think, to be supplied altogether by persons who have no difficulty in maintaining and decently educating their own families.* So with respect to the expenditure of the general Government; the same class ought not to be taxed for education, promotion of the fine arts, and maintenance of the glory of the nation.

On this ground I rest my defence of the proposed deduction of 100*l.* a-year from every assessment,—a change that would relieve the lowest class of incomes considerably, and would throw the charge of the superfluous expenditure more upon the richer men, who could scarcely complain of this moderate addition to their burdens. I do not regard the deduction of 100*l.* a-year from all assessments, as precisely that measure of relief which the struggling classes are entitled to; a more minute investigation might lead us to adopt a different scale. I do not think, however, that this relief can be too great; and I advocate the granting it, because I see little practical difficulty in the way, and because I see that it would satisfy the loud demand for a change which justice itself requires.

I am convinced besides, that the present tax is unjustly levied as regards houses, mines, quarries, and purchased terminable annuities; I am not clear, however, as to purchased life annuities. I further think that Section 133 gives an unfair reduction to traders.

* In point of *justice merely*, the poor law funds ought to be raised by those who are likely to benefit by them; that is by the labouring classes. Those funds, so raised, would constitute a great National Benefit Society.

EXTENT of PAUPERISM in the DISTRESSED UNIONS in LANCASHIRE
and other parts of the NORTH of ENGLAND, 1861-62. By
FREDERICK PURDY, *Principal of the Statistical Department,*
Poor Law Board.

SINCE the manifestation of Distress in Lancashire, and in some other Manufacturing districts, which has been ascribed to the outbreak of civil war in North America, and to the great diminution in the shipments of raw cotton to Europe which followed that event, the Poor Law Board has laid before Parliament, monthly returns of the number of paupers receiving relief in those Unions which have, up to the present time, most severely suffered by the suspension of their ordinary manufacturing pursuits. The "Cotton Famine" being, according to popular belief, the predominant cause of the distress.

The data for the table at page 382 and 383, have been abstracted from the Official returns alluded to; and represent the total number of Paupers, both in-door and out-door, in receipt of relief on the last day of the last week in each month, from November, 1861, to July, 1862, inclusive; lunatic paupers, in asylums, and vagrants, however, are excluded from the statement; those two classes constitute but a small portion of the total pauperism. On the 1st January, 1861, in the Union-County of Lancaster, for example, the asylum lunatics numbered 1,461; and the vagrants 204; together 1,665.

The Unions ranged in the statement under Cheshire and Lancashire, contain the great Cotton manufacturing district of England; there are considerable variations in the proportion of their respective inhabitants who are engaged in the cotton trade; and considerable varieties, also, in the character of the manufactured product. To these causes, the unequal pressure, borne by some parts of the district, is attributable. Thus, in the unions of Oldham and of Preston, both having the same amount of population, and, according to the census of 1851, about the same number of adults employed in manufactures; it will be observed that at the latest date, the pauperism in Oldham was 1 in 27; and in Preston 1 in 9, of the population. The pauperism of Preston was *threefold* that of Oldham. In the populous union of Chorlton it was less, by *one-half* per cent., than that of Oldham; but, in 1851, Chorlton employed only 16·7 per

Note.—Mr. Purdy has been good enough to prepare this Paper at my request, at short notice, with a view of placing before the Fellows the latest and most complete abstract of the official returns of the distress arising out of the Cotton Famine.—ED. S. J.

cent. of the adult population in manufactures ; while the ratio in the Oldham Union was 39·8.

The ratio of persons employed in the various branches of industry, according to the Census of 1861, cannot be stated at present ; because, the labours of the Commissioners, charged with the collection and publication of those important statistics, are not yet completed. The industrial statistics of 1851 are printed, in respect of every union in England and Wales, in tables (B) and (C) of the series of returns issued by the Poor Law Board, under the title of “ Poor Rates and Pauperism.”

Statements have been recently made, both in and out of Parliament, as to the number of persons who, in this country, are dependant upon the Cotton manufacture. Some of those accounts differ so widely from what we actually know of the number of operatives engaged in this industry, that their authors appear to be misinformed ; or to have omitted from their statements some important qualifications. In May, 1861, according to a return* prepared at the Home Office, under the supervision of one of the Factory Inspectors, there were in Cheshire and Lancashire 356,487 persons employed *in every description of Cotton factory*, viz. :—

Males (children and adults)	152,553
Females ,,	205,934

These numbers were taken at a time when the greatest activity prevailed in the cotton trade.

Most of the wives of the operatives and all their children, legally capable of work, find employment in the mills ; and will be included in the numbers set out above. Of the Males employed, 101,015 were returned as over 18 years of age. If we assume that these were all heads of families, and multiply that number by 4·8, which is the proportion of persons to each family in England, we find that there were 484,872 persons directly dependant for their subsistence on the cotton factory wages of the district. In round numbers they may be stated as *half a million*.†

The numbers thrown out of employment by the injury done to collateral and subsidiary trades, through the stoppage of the cotton-mills, it is not possible to estimate with any degree of certainty.

On inspecting the numbers for July, it is noticeable that there were five Unions, in the cotton manufacturing districts, much more

* House of Commons, No. 23, “ Factories,” session 1862.

† Mr. Potter has stated in a letter published in the “ Times ” of the 4th July, that *four millions* depend upon the Cotton manufacture “ for the very necessities of life.”

deeply pauperised than the others. In the next statement these five places are ranged according to their relative burdens ; and, the steps exhibited, with which they approached their present condition. This is shown by setting out month by month, *the rate per cent. of increase in pauperism*, when compared with that which prevailed at the corresponding periods of the *previous year* :—

Five most Pauperised Unions.—Percentages of Increase of Pauperism in each Month over same Month in previous Year.

Unions, &c.	1861.		1862.						
	November.	December.	January.	February.	March.	April.	May.	June.	July.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Preston	72	109	191	252	245	243	273	281	304
Blackburn	70	93	115	210	279	268	291	324	338
Manchester	45	64	79	93	107	108	115	129	189
Ashton-under-Lyne ..	27	40	137	153	178	265	385	448	582
Stockport.....	55	59	144	204	197	226	272	306	400

Note.—Thus in July, 1862, the pauperism at Preston was 304 *per cent.* higher than in July, 1861.

It would appear from proposals made in Lancashire, and in other parts of the kingdom, that a fear was entertained that our great manufacturing county would be unable to afford the necessary relief to the poor, who, deprived of their usual means of subsistence, must seek the aid of public charity, or of private benevolence. Fortunately, the district upon which the main cost will be incident, is one where the development of wealth has been immense.

Taking the annual value of Real property, assessed under Schedule A, for the purposes of the property tax, as the best exponent of the rateable value, it will be found that in seventeen years, Lancashire has increased 53 per cent. in this item of her wealth.

The figures under the principal heads are shown in the following table ; they have been extracted from two returns, presented to Parliament by the Commissioners for Inland Revenue.

Annual Value of Real Property in the County of Lancaster, Assessed to the Property Tax in the Years ended at April, 1843 and 1860.

Years.	Lands (including Tithes).	Messuages.	Quarries.	Mines.	Iron Works.
	£	£	£	£	£
1843.....	1,676,145	4,777,536	21,038	348,007	1,174
'60.....	1,605,790	7,019,978	34,667	633,420	5,068

Years.	Canals.	Railways.	Other Property.	Total.
	£	£	£	£
1843.....	71,590	593,515	9,507	7,498,512
'60.....	197,499	1,564,366	393,063	11,453,851
Increase in 17 years	—	—	—	3,955,339

The highest poor rate known up to the present time, in any place in Lancashire, is that of the Preston Union. It is estimated by the Chairman of the Union, that the whole expenditure in relief, for the current year, will amount to 50,000*l.* or 3*s.* 6*d.* in the pound on the assessable property, throughout the Union.*

It has been computed, upon the assumption that the highest weekly expenditure hitherto attained throughout Lancashire, will represent the average for the year, that the expenditure for relief to the poor in the parochial year 1862-3, will be 630,000*l.*,† for the whole of the Union-County.

A well informed public writer has maintained, as a probable view in reference to the present distress, that “The manufacturers and merchants of Lancashire are deriving a balance of profit from the war in the United States, and the check to the importation of the raw material. At no single point has any scarcity of stocks yet been shown, the total on hand at most marts being still such as to check a full response to the upward movement of prices here. The amount of over-trading carried on during the years immediately preceding 1861, must therefore have been beyond all former experience even in the wild speculations of this country, and it is palpable that the events which are now causing distress among the Manchester operatives, have converted that which would have brought ruin upon a large number of employers and shippers into a trade which

* See Report in the “Times,” of the 7th August.

† The details are given in the “Manchester Guardian,” for the 5th August.

“ has yielded, as far as they are concerned, highly remunerative
“ returns. Of course all such estimates are idle; but there are per-
“ sons who believe that the pecuniary difference to Lancashire has
“ amounted to between 20,000,000*l.* and 40,000,000*l.* sterling. What-
“ ever the amount, it must have been enormous, and there is conse-
“ quently every reason to hope that the wealth of the district will be
“ found able to continue to make the sacrifices that have already been
“ commenced, and that may be essential during the winter. It is
“ believed, moreover, that the pressure of these sacrifices will induce
“ an increased readiness to meet the outlay for new machinery for
“ the more general use, not only of Indian cotton, but of the various
“ fibres that may be adopted as substitutes. It is asserted in some
“ quarters that much reluctance to run any risk even in this respect
“ has been manifested, but when it is found that it is only by such
“ means that employment can be created so as to lessen the relief
“ rates, an impulse will be imparted to the exercise of ingenuity and
“ the embarking of capital, which may have a most important and
“ salutary bearing on the industrial skill of the country.”*

It may be remarked as regards the other Unions, that the distress in Coventry and Nottingham arose upon the French Reciprocity Treaty coming into operation; and, that the pauperism in both unions has considerably declined from the highest point recently attained; though, it is still much above its average level. Stoke-upon-Trent, Birmingham, Ecclesall, Bierlow, Leeds, and Sheffield, suffered by the stoppage of their export trade to America; but, the table satisfactorily shows, that, with the approach of summer, the pauperism in all those unions greatly diminished; and, that in respect to Leeds, it is now so low, as to indicate a very active demand for labour in the great centre of the woollen trade.

* “Times” City article, 9th August.

*Statement of the Number of Persons (exclusive of Lunatics in Asylums and Vagrants),
of each of the Nine Months,*

1 Unions, &c.	2 Population in 1861.	3 4 5 6 7 Number of Persons				
		1861.		1862.		
		November.	December.	January.	February.	March.
CHESHIRE.		No.	No.	No.	No.	No.
Macclesfield.....	61,517	2,602	2,871	3,045	3,148	2,696
Stockport	94,361	2,123	2,308	3,721	4,494	4,573
LANCASHIRE.						
Ashton-under-Lyne	134,761	2,220	2,486	4,293	4,639	5,158
Barton-upon-Irwell	39,050	853	924	936	950	917
Blackburn	119,937	4,519	5,278	7,233	9,274	10,060
Bolton.....	130,270	3,750	3,895	4,169	4,251	4,282
Burnley	75,588	1,632	1,694	1,998	2,516	2,638
Bury	101,142	2,151	2,542	3,204	3,693	3,549
Chorley	41,679	1,530	1,748	1,952	2,039	1,900
Chorlton	169,573	2,892	3,144	3,528	3,813	3,884
Clitheroe	20,476	765	779	870	947	867
Haslingden	69,782	1,070	1,423	1,656	1,987	1,673
Liverpool, <i>parish</i>	269,733	15,684	15,864	18,024	42,618*	28,217
Manchester, <i>township</i>	185,040	7,757	9,494	11,356	11,904	12,773
Oldham	111,267	2,109	2,167	2,652	2,942	2,922
Preston	110,488	5,641	7,021	9,859	11,574	11,507
Prestwich.....	20,476	674	731	812	816	801
Rochdale	91,758	2,373	2,572	3,667	4,135	4,239
Salford	105,334	3,150	3,731	4,307	4,334	4,411
Warrington	43,788	1,435	1,583	1,704	1,709	1,734
Wigan	94,559	2,765	2,843	2,945	3,052	2,969
NOTTINGHAMSHIRE.						
Nottingham	75,753	5,382	5,609	6,206	6,154	6,075
STAFFORDSHIRE.						
Stoke-upon-Trent, <i>parish</i>	71,292	2,491	2,610	2,915	2,843	2,830
WARWICKSHIRE.						
Birmingham, <i>parish</i>	212,510	12,771	13,284	13,311	11,627	10,654
Coventry	41,647	4,049	4,285	4,556	4,715	4,425
YORK, W. R.						
Ecclesall Bierlow	63,618	2,955	3,241	3,330	2,916	2,788
Leeds, <i>township</i>	117,553	3,246	3,434	3,559	3,528	3,413
Sheffield	128,929	8,153	8,935	9,645	8,494	7,726
Totals	2,801,881	106,742	116,496	135,453	165,112*	149,681

* The excessive number of this week was entirely due to the increase occasioned at Liverpool

Note.—The figures above are abstracted from a paper of the past session, viz., House of

in receipt of Relief in the Distressed Unions of the North of England, in the last Week ended with July, 1862.

Receiving Relief.				12	13	14
1862.				Increase per Cent. in Paupers in July, 1862, as compared with July, 1861.	Ratio per Cent. of Paupers to Population, last Week of July.	Unions, &c.
April.	May.	June.	July.			
No.	No.	No.	No.	Per cent.	Per cent.	CHESHIRE.
2,837	2,984	2,972	2,959	28	4·81	Macclesfield
5,081	5,406	6,038	7,241	400	7·67	Stockport
						LANCASHIRE.
6,758	8,434	9,632	11,964	582	8·88	Ashton-under-Lyne
912	918	963	1,137	48	2·91	Barton-upon-Irwell
9,998	10,685	11,543	12,028	338	10·03	Blackburn
4,235	4,449	4,491	4,446	41	3·41	Bolton
3,354	3,317	3,398	3,570	170	4·72	Burnley
3,708	3,734	3,866	4,400	126	4·35	Bury
2,003	2,190	2,402	2,369	84	5·68	Chorley
3,893	4,279	4,509	5,417	96	3·19	Chorlton
1,020	1,030	1,025	1,000	70	4·88	Clitheroe
1,657	1,663	1,769	2,354	176	3·37	Haslingden
						Liverpool, <i>parish</i>
18,214	16,734	15,572	15,351	16	5·69	Manchester, <i>township</i>
12,296	12,795	14,255	16,817	189	9·09	Oldham
3,042	2,969	3,065	4,180	150	3·76	Preston
10,895	11,826	12,145	12,525	304	11·34	Prestwich
780	830	876	948	55	4·63	Rochdale
4,477	4,371	4,396	5,129	156	5·59	Salford
4,506	4,455	4,640	5,221	109	4·96	Warrington
1,670	1,642	1,642	1,686	39	3·85	Wigan
3,172	3,619	3,626	3,777	43	3·99	
						NOTTINGHAMSHIRE.
5,736	5,099	4,785	4,512	22†	5·96	Nottingham
						STAFFORDSHIRE.
2,637	2,576	2,505	2,513	6	3·52	Stoke-upon-Trent, <i>psk.</i>
						WARWICKSHIRE.
10,068	9,971	9,543	9,314	10	4·38	Birmingham, <i>parish</i>
3,053	1,799	1,270	1,416	56†	3·40	Coventry
						YORK, W. R.
2,586	2,286	2,168	2,101	29†	3·33	Ecclesall Bierlow
3,414	3,264	3,143	3,070	1	2·61	Leeds, <i>township</i>
7,387	6,750	6,411	6,400	21†	4·96	Sheffield
139,389	140,075	142,650	153,845	75	5·49	Totals

by the prevalence of easterly winds, which stopped the principal business of the port.

† Decrease.

Commons, No. 502. The last column of ratios, however, was computed for this table.

STATISTICS of the GENERAL HOSPITALS of LONDON, 1861.

THE tables which follow embody the facts for the Year 1861, forwarded from the several General Hospitals of London, in pursuance of the resolutions passed at a meeting held at Guy's Hospital on 21st June, 1861, at the instance of Thomas Turner, Esq., Treasurer of the Hospital.*

1. That this meeting considers it of the utmost importance that the metropolitan hospitals should adopt one uniform system of registration of patients.

2. That this meeting recommends, that at every metropolitan hospital, there be kept one or more books, which shall comprise the following particulars relating to the patients:—the Age, Sex, Social Relation (Mar., Single, Wid.), Occupation, Name of Disease, or Injury, Date of Admission and Discharge, Result, Days in Hospital, and a column for remarks.

3. That in the case of those hospitals which have not yet adopted a system of

* The following gentlemen were present at the meeting:—From St. Bartholomew's Hospital, Dr. Edwards; Guy's Hospital, Dr. Barlow and Dr. Steele; St. Thomas's Hospital, Dr. Barker; The London Hospital, Dr. Little; St. George's Hospital, Dr. Dickenson; King's College Hospital, Dr. Guy and Mr. Blyth; The Middlesex Hospital, Dr. Stewart and Mr. Moore; St. Mary's Hospital, Dr. Broadbent.

TABLE I.—*General Results. (No distinction*

Hospital.	<i>Remaining 1st January, 1861.</i>	<i>Admitted during the Year.</i>	<i>TOTAL.</i>	<i>Discharged Well or Convalescent.</i>
	No.	No.	No.	No.
St. Bartholomew's	559	5,565	6,124	4,409
Guy's	493	4,867	5,360	2,553
St. Thomas's	443	3,992	4,335	1,946
London	351	4,169	4,520	2,054
St. George's	335	3,646	3,981	1,605
† Middlesex	223	2,042	2,265	1,813
St. Mary's	131	1,691	1,822	1,016
Westminster	143	1,522	1,665	1,373
King's College	120	1,332	1,452	726
University „	100	1,286	1,386	655
Royal Free	79	1,190	1,269	760
Charing Cross	98	925	1,023	843
Metropolitan Free	8	146	154	65
Great Northern	5	145	150	132
Totals	3,088	32,418	35,506	19,950

† The figures given for this hospital are those supplied to the Statistical Department hospital, the full returns supplied by the

registration embracing the above particulars, it is recommended that they employ a register book containing all the annexed particulars in printed columns :—

Number of Patient. | Date of Admission. | Name. | Residence (Street and Parish). | Medical Officer. | Ward. | Age. | Male. | Female. | Soc. Relat. (M. S. W.) | Occupation. | Name of Disease or Injury. | Date of Discharge. | Result. | Days in Hospital. | Remarks.

It is further suggested that the first set of headings commencing with “Number,” and terminating with “Ward,” be printed on the left hand page, and that the remainder be placed on the right hand page of the Register; and it will also be found convenient if each page of the register book should be ruled to contain either 25, 50, or 100 horizontal lines, each line to give the particulars of an individual case.

4. That this meeting recommends, that as far as practicable in the column of the register book headed Disease or Injury, the nomenclature employed by the Registrar-General be adopted, with the additions contained in the forms submitted by Miss Nightingale to the International Statistical Congress.

5. That the Council of the *Statistical Society* having kindly undertaken to publish in their *Journal* some of the leading statistics of the metropolitan hospitals, if provided annually with the necessary information, the authorities of the several metropolitan hospitals be requested, at the close of each year, to draw up and communicate to that Society a summary of the statistics of the hospital for the year; such summary to comprise the data tabulated in the manner represented on the accompanying form.

6. That it be suggested to the authorities of the several metropolitan hospitals, that it will be of great public advantage if they will also publish annually a full report of the statistics of disease treated within the hospital, following, as far as practicable, the arrangement and nomenclature employed by the Registrar-General and by Miss Nightingale in the paper referred to in the third resolution.

7. That in the opinion of this meeting, it is essential there should be in every hospital an officer charged specially with the duty of attending to the registration of patients.

THOMAS TURNER, *Chairman.*

of Sex, or of Medical or Surgical Cases.)

Relieved.	Unrelieved.	Discharged for Special Reasons.	Died.	Remaining 1st January, 1862.	Hospital.
No.	No.	No.	No.	No.	
—	293	303	597	522	St. Bartholomew's
1,431	309	126	458	483	Guy's
1,461	77	19	380	452	St. Thomas's
1,474	23	264	350	355	London
1,682	26	36	318	314	St. George's
—	—	—	239	213	Middlesex †
384	50	62	174	136	St. Mary's
—	—	—	149	157	Westminster
348	86	23	143	126	King's College
422	42	11	144	112	University „
301	20	36	80	72	Royal Free
—	—	—	77	103	Charing Cross
58	3	4	10	14	Metropolitan Free
—	—	—	12	6	Great Northern
7,561	929	884	3,131	3,065	Totals

of the Board of Trade. Through the absence from England of the registrar of the other hospitals could not be obtained.

TABLE II.—*Medical and Surgical*

Hospital.	Medical Wards.					
	<i>Remaining 1st January, 1861.</i>	<i>Admitted during the Year.</i>	<i>TOTAL.</i>	<i>Dis- charged.</i>	<i>Died.</i>	<i>Remaining 1st January, 1862.</i>
	No.	No.	No.	No.	No.	No.
St. Bartholomew's	219	2,181	2,400	1,781	408	211
Guy's	221	2,120	2,341	1,834	303	204
St. Thomas's	179	2,044	2,223	1,770	264	189
London	103	1,256	1,359	1,098	161	100
St. George's.....	116	1,675	1,791	1,478	195	118
Middlesex	—	—	—	—	—	—
St. Mary's	61	893	954	784	109	61
Westminster	—	—	—	—	—	—
King's College	57	655	712	557	95	60
University ,,	52	614	666	530	89	47
Royal Free	25	297	322	265	34	23
Charing Cross	39	435	474	390	51	33
Metropolitan Free	2	76	78	65	6	7
Great Northern	2	24	26	22	4	—
Totals	1,076	12,270	13,346	10,574	1,710	1,053

TABLE III.—*Average Number of*

Hospital.	All Cases.				Medical	
	Average Number Resident.			Mean Residence.	Average Number	
	Males.	Females.	Total.		Males.	Females.
	No.	No.	No.	Days.	No.	No.
St. Bartholomew's	—	—	555	36	—	—
Guy's	297	212	509	35	127	98
St. Thomas's	276	184	460	39	108	93
London	213	112	325	29	55	46
St. George's.....	177	145	322	27	61	62
Middlesex	—	—	—	—	—	—
St. Mary's	77	56	142	31	29	36
Westminster	—	—	134	32	—	—
King's College	64	56	120	33	30	29
University ,,	—	—	—	—	—	—
Royal Free	34	45	79	28	12	15
Charing Cross	—	—	—	—	—	—
Metropolitan Free	5	7	12	27	2	3
Great Northern	8	2	10	26	—	—
Totals	1,151	828	2,668	Average 31	424	382

Cases, without distinction of Sex.

Surgical Wards.						Hospital.
<i>Remaining 1st January, 1861.</i>	<i>Admitted during the Year.</i>	<i>TOTAL.</i>	<i>Dis- charged.</i>	<i>Died.</i>	<i>Remaining 1st January, 1862.</i>	
No.	No.	No.	No.	No.	No.	
340	3,384	3,724	3,224	189	311	St. Bartholomew's
272	2,747	3,019	2,585	155	279	Guy's
264	1,848	2,112	1,733	116	263	St. Thomas's
248	2,913	3,161	2,717	189	255	London
219	1,971	2,190	1,871	123	196	St. George's
—	—	—	—	—	—	Middlesex
76	798	874	734	65	75	St. Mary's
—	—	—	—	—	—	Westminster
63	677	740	620	54	66	King's College
48	672	720	600	55	65	University „
54	893	947	852	46	49	Royal Free
59	490	549	453	26	70	Charing Cross
6	70	76	65	4	7	Metropolitan Free
3	121	124	110	8	6	Great Northern
1,652	16,584	18,236	15,564	1,030	1,642	Totals

Patients and Mean Residence.

Cases.		Surgical Cases.					Hospital,
Resident.		Average Number Resident.			Mean		
Total.	Mean Residence.	Males.	Females.	Total.	Residence.		
No.	Days.	No.	No.	No.	Days.		
—	28	—	—	—	44	St. Bartholomew's	
225	35	170	114	284	34	Guy's	
201	33	168	91	259	50	St. Thomas's	
101	30	158	66	224	28	London	
123	24	116	83	199	29	St. George's	
—	—	—	—	—	—	Middlesex	
65	26	48	29	77	35	St. Mary's	
—	—	—	—	—	—	Westminster	
59	31	37	24	61	35	King's College	
—	—	—	—	—	—	University „	
27	29	22	30	52	28	Royal Free	
—	—	—	—	—	—	Charing Cross	
5	21	3	4	7	32	Metropolitan Free	
—	—	—	—	—	—	Great Northern	
806	Average 28	722	441	1,163	Average 35	Totals	

TABLE IV.—*Rate of Mortality.*

Hospital.	All Cases.			Medical Cases.			Surgical Cases.		
	Males.	Females.	Males and Females.	Males.	Females.	Males and Females.	Males.	Females.	Males and Females.
	Pr. cnt.	Per cnt.	Per cnt.	Pr. cnt.	Per cnt.	Per cnt.	Pr. cnt.	Per cnt.	Per cnt.
St. Bartholomew's	—	—	10·7	—	—	18·7	—	—	5·6
Guy's	10·4	8·5	9·4	16·3	11·6	14·1	6·4	4·4	5·6
St. Thomas's	10·0	9·2	9·7	14·8	10·5	11·8	5·1	5·0	5·5
London	7·9	9·2	8·4	14·0	11·5	12·8	5·9	7·6	6·5
St. George's	10·1	6·9	8·3	13·2	8·6	10·9	7·4	4·4	5·6
Middlesex	—	—	11·7	—	—	—	—	—	—
St. Mary's	11·8	8·1	10·1	13·6	9·6	11·5	10·2	5·9	8·5
Westminster	—	—	9·6	—	—	—	—	—	—
King's College.....	13·8	7·1	10·7	20·3	8·6	14·5	9·1	6·4	8·0
University „	—	—	11·2	—	—	14·5	—	—	8·2
Royal Free	6·2	6·1	6·0	11·9	9·4	10·5	7·0	3·3	4·8
Charing Cross	—	—	8·3	—	—	11·7	—	—	5·3
Metropolitan Free	5·0	7·0	6·8	7·8	7·1	7·9	2·6	7·8	5·7
Great Northern	—	—	8·2	—	—	16·4	—	—	6·6
Average	—	—	9·5	—	—	12·9	—	—	5·6

TABLE V.—*Admissions and Deaths in General and in Special Wards.*

Hospital.	General Wards (Medical and Surgical).			Special Wards.		General and Special Wards.		
	Admitted.	Died.	Rate of Mortality.	Admitted.	Died.	Admitted.	Died.	Rate of Mortality.
	No.	No.	Per cnt.	No.	No.	No.	No.	Per cnt.
St. Bartholomew's	4,702	525	11·17	863	13	5,565	538	10·7
Guy's	4,072	458	11·25	795	nil	4,867	458	9·4
St. Thomas's	—	—	—	—	—	—	—	—
London	—	—	—	No account kept.	—	4,169	350	8·4
St. George's.....	3,646	318	8·3	nil	nil	3,646	318	8·3
Middlesex	—	—	—	—	—	—	—	—
St. Mary's	1,582	168	10·6	109	3	1,691	171	10·1
Westminster	1,514	149	9·6	nil	nil	1,514	149	9·6
King's College.....	1,295	143	11·04	37	nil	1,332	143	10·7
University „	1,247	144	11·54	41	nil	1,288	144	11·2
Royal Free	—	—	—	—	—	—	—	—
Charing Cross	925	77	8·3	nil	nil	925	77	8·3
Metropolitan Free	146	10	6·8	nil	nil	146	10	6·8
Great Northern	—	—	—	—	—	—	—	—
Totals	19,129	1,992	Average 10·4	1,845	16	25,143	2,358	Average 9·4

Note.—In all these tables the blanks (—) must be understood to imply an absence of information. The information comprised in Table V respecting Special Wards, was supplied by the several hospitals in answer to a circular letter sent by the Honorary Secretaries of the Statistical Society. The inquiry was suggested by the wide differences existing in the rates of mortality in hospitals having many circumstances in common.

MISCELLANEA.

CONTENTS:

	PAGE		PAGE
I.—Tenth Italian Scientific Congress	389	V.—Agriculture in Holland	398
II.—Railways in India, 1861-2....	390	VI.—Trade of Persia, 1860.....	400
III.—Census of South Australia, 1861	393	VII.—The Trade in Oranges.....	401
IV.—Decreasing Production of Gold in Victoria (Australia)	396	VIII.—The Extent of the Deficit in the Cotton Supply	402

I.—*Tenth Italian Scientific Congress.*

A CIRCULAR, dated Sienna, 8th April, 1862, announcing the meeting of the Tenth Italian Scientific Congress in that city, in September (1862), has been received by the Society. The circular is signed by the *President-General* Professor Francesco Puccinotti, and the *Secretaries-General* Professors Giovanni Campani and Valerio Castellini, and the following is a translation of its principal contents:—

“ The Italian Scientific Congresses, prevented from meeting by the political events which have taken place in the Peninsula during the last fourteen years, are now returning to new life under the happy auspices of a politically regenerated Italy.

“ It being necessary now to give effect to what was determined by the Extraordinary Congress of the Italian scientific world held in Florence in the past autumn, scientific reunions (renovated and considerably amplified and extended in accordance with the new general regulation there decreed) ought in the present year to be revived in this city—formerly chosen, as it was, for the seat of the tenth re-union at the Ninth Scientific Congress assembled at Venice in 1847.

“ The gratifying duty now devolves upon us of publicly announcing, that the Communal Council of Sienna, for the purpose of offering to the scientific gentlemen who will be there assembled, some token of their high consideration, that may accord in a marked manner with the general scope of their re-union—have determined to place at the disposal of the General Presidency the sum of 3,000 Italian lire (about 125*l.*) to defray the expense of any inquiries or experiments that the Congress may desire to undertake or elucidate.

“ For the information of those who may take part in the Congress, it will be as well to call their attention to those parts of the regulation which hereafter must be literally observed. They are as follows:—

“ ‘Art. IV. The Congress is divided into two principle sections, viz. :—

“ ‘1. Physical, Mathematical, and Natural Sciences.

“ ‘2. Moral and Social Sciences.

“ ‘The first section comprises nine classes:—1. Physics and Mathematics ; 2. Chemistry and Pharmacy ; 3. Mineralogy, Geology, and Palæontology ; 4. Botany ; 5. Zoology, Comparative Anatomy, and Physiology ; 6. Medicine ; 7. Surgery ; 8. Agriculture and Veterinary Surgery ; 9. Technology.

“ ‘The second section is sub-divided into five classes:—1. Archæology and History ; 2. Philology and Languages ; 3. Political Economy and Statistics ; 4. Philosophy and Law ; 5. Education (or System of Teaching).

“ ‘ Art. V. It is decreed that the following are eligible to be Members of the Congress :—Those who are associates of academies, or of other institutions that publish their proceedings ; the directors of schools or scientific establishments ; all instructing professors and professors by appointment ; and the official superiors of learned bodies. Gentlemen who may not be Italians, will, on the proposition of three members of the Congress, be permitted to take part in the proceedings.

“ ‘ Art. VI. At each Congress, any Italian scientific gentleman who may wish to join it, must state to which class or classes he intends to attach himself, and pay at the time of admission a subscription of 20 lire (about 16s. 8d.) ’

“ The Congress will be inaugurated at Sienna, on the 14th of September next, and terminate on the 27th of the same month. In the meantime it is notified that the following honourable gentlemen have been nominated Assessors :—

“ Count Augusto de Gori, Senator of the Kingdom, President of the Royal Academy of Critical Physiology of Sienna, Member Ordinary of the Italian Society of Political Economy, and Corresponding Member of the Royal Academy of Agriculturists.

“ Count Scipione Borghesi, Senator of the Kingdom, Member Ordinary of the Royal Academy of Critical Physiology.

“ Lastly, we respectfully ask the representatives of Literary and Scientific Institutions ; the superior civil authorities, both judicial and administrative ; the heads of special departments ; and the directors of industrial undertakings, to take part in whatever may specially concern them in the present convocation.”

II.—*Railways in India, 1861-2.*

“ MR. JULAND DANVERS, Government Director of the Indian Railway Companies, has just presented to the Secretary of State in Council an elaborate Report on Railways in India for the year 1861-2. The subject has at present considerable interest, as well because it is indicative of advancing civilization and commercial enterprise in our Eastern dominions, as because English capital, seeking investment, has for some time past set very much in that direction. From the report of Mr. Danvers, therefore, we cull some of the more important particulars.

“ He states that the progress in the works on the railways in India has been steadily continued during the past year ; that an expenditure of about 7,000,000*l.* has been incurred, and 760 miles of *new line* have been opened for traffic. Of the *East Indian Railway*, 1,364 miles in length, 563 miles had been opened in January, 1862 ; of the *Great Indian Peninsula*, 1,266 miles long, 437 miles had been opened ; of the *Madras*, 850 miles long, 298 $\frac{3}{4}$; of the *Bombay and Baroda*, 310 miles long, 132 $\frac{1}{2}$; the *Scinde*, 114 miles long, had been wholly opened ; of the *Great Southern*, 78 $\frac{1}{2}$ miles in length, 48 had been opened ; and of the *Calcutta and South-Eastern*, 29 miles long, 16 had been opened. The *first Punjab*, 252 miles long ; the *second ditto*, 280 miles ; and the *Eastern Bengal*, 110 miles, are all in course of construction, and no part of them has yet been opened. It will be remembered that the works on three sections of railway which had been sanctioned were suspended, viz., the branch of the East Indian Railway from Allahabad to Jubbulpore, the extension of the Punjab line from Lahore to Delhi, and the section between Sholapore and Bellary on the Bombay and Madras line. Arrangements have recently been made with the East Indian Railway Company, who have funds for the purpose, to commence operations on the first of these lines, and the Punjab Railway Company have been authorized to take measures for issuing shares to the extent of 2,500,000*l.* for the second, and to raise such an amount at once as shall be sufficient to allow the more formidable works, such as bridges, to be commenced this year. Advantage has been taken of the suspension of the last section, half of which appertains to the Great Indian Peninsula, and

half to the Madras Company, to make a more extended examination of the country through which the line passes, for the purpose of ascertaining whether a more advantageous route than that originally decided upon may not be found.

“The approaching completion of the main lines has drawn the attention of Government and of the public to various schemes, which, either directly or indirectly, should prove valuable auxiliaries to the railways. The first of these is a system of *cross roads* to connect the railway stations with the existing high roads of the country. This work has been vigorously undertaken by the local authorities in various districts. The Home Government has also recently sanctioned the execution, by the direct agency of local officers, of a light railway from the iron works on the Kumaon Hills, to Koorjah in the Dooab. It was mentioned in a former report that Mr. Hardy Wells had been deputed to examine and report upon the subject, and this line is one of a system of railway and road communication in the provinces of Rohilcund and Oude submitted by him to the Government of India. The other projects have been taken up by persons of enterprise in this country.

“Some idea of the work done in this country in connection with Indian railroads, may be formed from the fact that up to December last 2,459,928 tons of materials had been despatched to India by the railway companies. On this service 3,012 ships were employed, of which thirty-nine have been lost. The value of the materials sent out was about 12,000,000*l.*, and the amount paid for insurance about 318,756*l.*, being on an average 2*l.* 12*s.* per cent. The total amount of losses sustained in the transport, is about 250,000*l.*, being less than $2\frac{1}{4}$ per cent. on the value of the materials despatched. The losses were in each case fully covered. But, besides recovering from the underwriters 250,000*l.* for the materials lost, the companies also received considerable sums for general averages, so that the difference between the aggregate amount paid for premiums on insurance and the amount of losses, was very small.

“On the 1st of January, 1861, the number of *proprietors* in the Indian railways was 17,118, and the paid-up capital, 25,887,050*l.* The year before it was 15,224, and the paid-up capital, 22,920,000*l.* During the past year, the shareholders have increased to 19,469, and the share capital to 31,308,909*l.*, in addition to which, 11,756,249*l.* is held in debentures by 6,621 persons. These facts show that the Indian railway interest in this country has become a very important one. It is a noteworthy circumstance that, out of 34,329 persons employed on the open lines, on the 30th of October last, 32,148 were *natives* of the country.

“The financial position of the companies is more satisfactory than could have been expected at the commencement of the year. It was at that time apprehended that the companies themselves would be unable to raise the necessary funds for their operations during the year, and power was given to the Secretary of State in Council by Parliament, to raise money in this country to meet any deficiency. Certain sections of line were also suspended, in order that the expenditure might be so limited as to afford better facilities for raising the amount absolutely required to prevent loss and delay on lines in course of execution. After a time, however, the state of the money market improved; and the growing confidence of the public in the resources of India, consequent on the actual improvement in its finances, was practically demonstrated by the steady demand which arose for Indian securities, including railway stock and debentures. Between the 1st of May and the end of December, 1861, a sum of 4,648,641*l.* had been raised by the companies, and this has been since increased by upwards of 4,000,000*l.* The Government were thus relieved from the necessity of raising any money on their behalf. While the sum thus raised by the companies has been more, the *expenditure* has been less than was expected. It was calculated that 6,000,000*l.* would be spent in India, and 2,000,000*l.* in England. In India the actual expenditure had been about 5,150,000*l.*; in England, 1,700,000*l.* The probable expenditure by the railway companies for the year 1862-3, may be taken to be 7,100,000*l.* Towards meeting this outlay, there was a balance to the credit of the companies on the 1st of May, of about 2,400,000*l.* There should be a balance of about 1,000,000*l.* on the 1st of

May, 1863. To provide the whole amount thus required, about 6,000,000*l.* will therefore have to be raised during the present year. Of the sum of 8,668,617*l.* raised during the past year, 3,745,838*l.* was by shares, and 4,922,779*l.* by debentures. At the beginning of the official year, the share capital was 27,559,688*l.*, the debentures 6,835,770*l.*, total 34,395,458*l.* The whole amount of capital now issued, accordingly reaches 43,065,890*l.*, consisting of shares or stock 31,308,641*l.*, debentures, convertible into shares, 6,922,949*l.*, debentures, not convertible, 4,833,300*l.* Works, which will cost about 57,500,000*l.*, have been sanctioned; a sum of 53,500,000*l.*, has been guaranteed, and the remainder will be guaranteed as required. Of this 43,000,000*l.* has been raised, and of this last, 40,600,000*l.* has been expended.

"In giving 57,520,000*l.* as the amount estimated to complete the undertakings, Mr. Danvers guards himself against encouraging the expectation that this sum may not be exceeded. Past experience would unfortunately lead to the impression that very likely it will. A double line of rails will in some places be necessary to meet the requirements of the traffic, and the same reason will probably be brought forward to justify the purchase of additional locomotive power and rolling stock. It is true that these causes for increased capital may not be considered unsatisfactory, for such outlay ought at once to produce a corresponding increase in the receipts. There are, however, no data upon which to found an exact calculation, *the average cost per mile*, upon the whole, is about 12,360*l.*; but before the railways are completely finished, including a small allowance of double lines, 13,000*l.* will probably be nearer the mark, which would make the total capital required upwards of 60,000,000*l.* The sum paid by the railway companies out of their profits towards the liquidation of guaranteed interest, only amounted to about 1,250,000*l.* The balance, more than 5,000,000*l.*, is recoverable by Government from *half* the net receipts in excess of 5 per cent. The annual amount due from the Government for interest is now upwards of 2,000,000*l.*

"The *annual earnings* of the railways for the year ending the 30th of June last (the latest date to which the account of net receipts have been received), did not amount to a sixth of this sum, but a great portion of the capital to which the guaranteed interest applies is, of course, still altogether unproductive. The lines yielding the above profits do not represent half the capital which has been expended, and the work they are doing is moreover but a fraction of what they will do. The detached portions of line which are open, the imperfect communication between many stations and the existing roads of the country, the unsettled arrangements for conducting the traffic, and the still experimental state of the question of rates and fares, render it very difficult, if not impossible, to anticipate, by estimates or calculations, the results that may be obtained when the various works are fully completed.

"Mr. Danvers remarks that the question of rates and fares naturally leads to an inquiry into the effects they will have upon the *price* in the market of the produce of the country, more especially cotton. He gives a detailed account of imports of cotton into this country during the last three years, showing how greatly the supply from India has been increased in consequence of the price which the commodity has commanded in Lancashire. The charge for conveying *cotton by railway* is now from 1*d.* to 1½*d.* per ton per mile. The mode hitherto adopted of carrying it by bullocks and in country carts, involves an expense of about 3*d.* or 3½*d.* per ton per mile, and the cotton is so much injured during its transit, that the cost of conveyance really amounts to about 4½*d.* per ton. The railway charges of 1*d.* and 1½*d.* exhibit, therefore, a very favourable contrast, and will enable the merchant to reduce the price at Manchester to 4*l.* or 4*l.* 10*s.* a ton, or nearly a halfpenny per pound for all cotton brought from a distance of 300 miles in the interior."—*Times*.

III.—Census of South Australia, 1861.

THE *South Australian Register* has the following interesting article on the formal report of the Census Commissioner :—

“ We have just received from the Chief Secretary’s office a large volume of nearly 200 pages, embodying the whole of the information collected on the taking of the census in April, 1861, and accompanied by a valuable introductory report, written by Mr. J. Boothby, the superintendent of census. It represents, apparently with great accuracy, the present state of the colony in all the following matters :—Ages of the people, occupation of the people, civil or conjugal condition of the people, education of the people, nationalities of the people, year of entering the colony, dwellings of the people, sick and infirm, and the aborigines.

“ Most of the subjects here dealt with have been noticed during the course of their publication in separate returns ; but our readers will doubtless find a *résumé* of the whole work useful and interesting. Commencing with the area of the province, we find its computed area to be about 200,000,000 acres, and the estimated area of the occupied districts altogether amounts to above 35,000,000 acres. The number of *acres actually alienated* from the Crown to the end of December, 1860, was 2,233,052, leaving 196,885,512 acres remaining in the Crown’s possession, of which 27,063,917 acres were *leased* for pastoral and other purposes, and 173,590 acres were *surveyed* and open for sale. The furthestmost points from the capital reached by the collectors were, it is said, to the north, about 500 miles ; to the west, 400 miles ; to the south-east, 300 miles ; and 90 miles to the south. ‘ The duty of collection in those very remote districts devolved upon the mounted police, and the success attending that portion of the enumeration is mainly owing to the zeal displayed by the members of that force engaged in its performance.’ The total population on the 8th April, 1861, was, as our readers are aware, 126,830, concerning which it is said the increase since 1855 was 41,641 persons ; natural increase, 20,628 ; excess of immigration over emigration, 20,407. The natural increase during the last six years has, therefore, it is remarked, added nearly a fourth to the population, and immigration has given the same increase. At these rates it follows that the population will double itself in less than twelve years ; but without the aid of immigration, trusting alone to the natural increase, it will take about twenty years.

“ With regard to the *distribution of the people*, it is said :—‘ It is a matter for congratulation, as indicative of future progress, that 85 per cent. of the population are *country residents*. The rapid settlement of an energetic people upon the agricultural lands of the province, employed directly or indirectly in its cultivation, and the opening up of new sources of mineral and pastoral wealth in the outer districts, cannot fail to produce a fitting reward to their industry and enterprise, and to advance the general prosperity. It will be seen that the *rural population* has increased since 1855 by a number equivalent to the total addition to the colonists during the last six years, a comparison of the number of residents in Adelaide and the country districts in 1855 and 1861 respectively giving the following results :—

	1855.	1861.	Increase.
City residents	18,259	18,303	44
Country „	66,930	108,527	41,597

“ ‘ During the last six years the rural population has increased by 41,597 persons, or 62 per cent., and now bears a proportion of 85·57 of the total population,

against 78·56 per cent. of the population in 1855; whilst the residents in the city have remained nearly stationary in numbers, and in proportion to the total population have decreased from 21·44 per cent. to 14·43 per cent. Although, doubtless, many who were formerly residents in the city have removed into the interior to minister to the wants of many rapidly-increasing centres of population, a preference for the surrounding villages and suburbs (which have increased to a large extent) as places of residence for persons engaged in the city during the day, has had its effect in preventing an increase in the number of citizens.'

"In reference to the question of '*sex*,' we learn that of all the Australian colonies South Australia shows the least disproportion in the number of the sexes—the males numbering 65,048 and the females 61,782. This near approach to equalization, maintained throughout the marriageable ages, has been brought about by *extensive assisted female immigration*, the advantages of which, in increasing the ratio of natural increase to the population by the percentage of births over deaths, will be disclosed in the coming ten years. An interesting fact bearing on this subject is mentioned in the following paragraph:—'The proportion of males to females is of all ages 51·29 per cent. of the former to 48·71 of the latter, or an excess of 2·58 per cent. of males. At the early age (under 5) it is only slightly in favour of the males, viz., ·19 per cent. This seems to indicate that here—as has been proved to be the case elsewhere—more female than male children outlive the period of infancy, as the total number of births of boys always exceeds that of girls, in this colony the difference being as much as 108 boys to 100 girls. In childhood,—5 to 14 years,—the numbers more closely approximate, the difference being only ·06 per cent. In the next period of age—15 to 20, and even up to 25 years of age—the females predominate; but of the whole adult population the males exceed by 2·81 per cent.—a considerable improvement upon the position at the census of 1855, when the excess of adult males was nearly 5 per cent.

"With regard to age, the census shows the following result:—In a population of 126,830 souls, 19·11 per cent. are in infancy; 24·56 per cent. are in years of childhood; 10·66 per cent. are between 15 and 21; and 45·67 per cent. of the whole number are adults, of whom 24·24 per cent. are males, and 21·43 per cent. are females. In 1855 the proportion of adult males was 25 per cent. and of adult females 21 per cent. The '*occupations* of the people,' are dealt with in a chapter which gives some interesting particulars concerning the extent of labour employed in farming. It is said:—

"It may here be stated that the return of cultivated land in the season of 1855-6 gave thirty-eight acres to each farmer; in 1860-61 the cultivated land was sixty acres to each agriculturist. It appears that, whilst the number of farmers has increased one-third only, the breadth of land under crop has more than doubled during the last six years. This extension of operations may indicate progress in the agricultural interest; but as we find that there is now only one farm servant to every fifty-three acres cultivated, where six years ago there was one labourer for every thirty-nine acres under crop, it follows that less labour is now bestowed upon the land than in 1855, and leads to the supposition that less produce, and consequently less profit, awaits agricultural operations than would be the case were a greater amount of labour expended in the tillage of our farms.

"With reference to the above, it should be borne in mind, on the one hand, that farmers' sons '*assisting on farms*' are included amongst the '*farm labourers*,' of whom, therefore, a large number are youths from 10 to 14 years of age, physically incapable of performing the work of an able-bodied man; and, on the other hand, that a certain proportion of persons tilling the small parcels of land of which they are proprietors, tends to swell the list of farmers, as they would be so returned, although probably acting during a great part of the year as *employés* rather than as employers.

"The stockholders in 1855 numbered 237, against 392 in 1861—an increase of 65 per cent., and their station *employés* have increased from 1,338 to 3,099, or nearly 132 per cent. The proportion to the whole population in 1855 of persons engaged in squatting was 1·85 per cent., against 2·75 per cent. in 1861. In addi-

tion to the above, nine females returned themselves as stockholders, and 394 females as employed on stations as hutkeepers, station servants, &c.'

"The *educational returns* show that about one-half of the children between 5 and 15 can read and write, about one-fourth can read only, and less than one-fourth are wholly uninstructed—a much more favourable state of things than in England and Wales, where more than one-half—58 per cent.—of the children between 3 and 15 are totally uneducated. The next period, 15 to 21 years, show proportions still more encouraging; for nearly 85 per cent. can read and write, viz., 11,413 out of 13,526 persons, or 5,458 out of 6,459 males, and 5,955 in 7,067 females; 698, or 5·16 per cent. only are totally ignorant of the art of reading; therefore, a less percentage at this than any other period of age. Amongst adults, it is also gratifying to record that only 4,825, or 8·33 per cent., are unable to read; the number able to read and write is 44,718, or 77·20 per cent.; of these, 25,214 are males, and 19,504 females; 2,792 males and 4,920 females at this period of age can 'read only.'

"With reference to the nationalities of the people, concerning which we recently published some ample details, the following remarks are made:—'As to the periods of the colonists' residence (exclusive of those born here) it appears that 10·63 per cent. arrived prior to 1840; 3·95 per cent. between 1840 and 1846; and 24·25 per cent. in the next five years, showing that 38·83 per cent. of the present residents are colonists of more than ten years' standing. Between 1851 and 1856, 36·24 per cent., and since 1856, 22·18 per cent. of the present residents arrived in the colony. That so large a proportion of its population are residents of lengthened experience of its climate and capabilities, is a fact worthy of record; and whilst it should afford encouragement to those who have but recently made South Australia their home, may with advantage be made known to those in the old country desirous of improving their social and domestic condition by emigration. It appears that of the colonists above ten years' standing, the Germans come next in number to the English and Welsh, then the Irish, and afterwards the Scotch. Two-thirds of the total immigrants from Ireland having arrived during the last ten years, now places the Irish above the German population in numbers; half of the latter have, however, been more than ten years in the province.'

"We now come to portions of the report concerning which no information has been yet published. The first chapter is on '*Dwellings*,' and is accompanied by tables showing the number of houses in the colony, the number of rooms contained in each, and the description of material used. We learn that in 1861 each inhabited dwelling had on the average 5·1 inmates, against 5·04 in 1855, showing that the considerable addition to the population has been met by a corresponding increase in house accommodation, and that of a superior class, as exhibited in the following return of the number of dwellings of each description:—

	1855.	1861.
Stone, brick, &c.	9,101	17,192
Wood	4,709	8,045
Slab and mud	3,087	2,667
	16,897	27,904

"Concerning this table, it is said an increase of substantial buildings in the city was to be expected, but the extent to which improvements of this nature have been effected in the country districts is very great. The following is a comparative table:—

	City.		Country.	
	1855.	1861.	1855.	1861.
Stone, brick, &c.	3,420	4,123	5,681	13,069
Wood.....	235	184	4,474	7,861
Slab and mud	118	45	2,969	2,622
	3,773	4,352	13,124	23,552

“ Amongst the inquiries instituted for the first time on the taking of the last census, was one relating to the number of *sick and infirm people* in the colony. The result of this inquiry was that the number of persons incapable from sickness of following their usual vocations, was 1·03 per cent. of the whole population. The *deaf, dumb, and blind* formed 10 per cent. of this number, and the crippled and maimed ·07 per cent. Another matter new to the census returns is that in reference to the *aborigines* of the colony. An attempt has been made to ascertain their numbers and condition, and this, through the instrumentality of the police, has been done with, it is supposed, a considerable approach to correctness. The following table shows the result of the inquiry :—

	Children.		Total.	
	Males.	Females.	Males.	Females.
Counties	230	206	1,022	799
Pastoral districts	227	187	1,620	1,605
Total	457	393	2,642	2,404

“ This small number of aborigines is supposed to include all there are in the colony, except, perhaps, a few in the Far North. A number nearly equal to one-fourth of the healthy adult males are in the employ of settlers.”

IV.—Decreasing Production of Gold in Victoria (Australia).

THE *Melbourne Argus*, of March, 1862, has the following analysis of the Gold Fields Statistics for 1861 :—

“ The Gold Fields statistics for the year 1861, enable us to ascertain the productiveness of this branch of our resources, and the extent of the forces employed to obtain a given result. The total quantity of gold *exported* last year was 1,967,420 *ounces*, and the number of *persons* actually engaged in mining pursuits was 100,463. Making a liberal allowance for the quantity of gold conveyed out of the Colony by private hand, which evaded payment of the Export Duty, and placing the highest value on the *gross produce*, we cannot estimate the aggregate earnings of our Mining population at more than 8,000,000*l.* sterling, which divided among 100,000 diggers, only gives 80*l.* per head per annum. But even this sum must be considerably in excess of the net earnings of each individual, since from the gross product must be deducted the interest on the Mining Plant

employed, the cost of the fuel consumed by the steam-engines, and of the timber required for stabling, the maintenance of the horses used in connection with the whims, pumps, and puddling-machines, and a large sum to represent the deterioration of plant, and casualties.

“Probably 70*l. a-year* would approximate more closely to the average earnings of each miner, and the bearing of this fact upon the value of Labour generally in this colony, is too important to be overlooked. The *income of the digger* has constituted a standard by which the wages of day labourers have been adjusted ever since the discovery of the gold fields. The fluctuations in the wages of the latter have been determined by those of the former; and the close relation which has existed, and continues to exist between the decline in the rate of wages and the average earnings of the miners, as a class, will become apparent by a comparison of them at the undermentioned rates and periods:—

	1854.	1857.	1861.
	£ s. d.	£ s. d.	£ s. d.
Farm labourers, per week	1 15 -	1 5 -	- 15 -
Stock-keepers, per annum	65 - -	50 - -	40 - -
Masons, per day	1 12 -	- 16 -	- 14 -
Carpenters, ,,	1 8 -	- 14 -	- 11 -
General labourers, per day	- 12 6	- 9 -	- 7 -
Miners, per annum	130 - -	83 - -	70 - -

“The distribution of population on the gold fields, and the proportion borne by the *mining* to the *miscellaneous* population, as well as by the European to the Chinese diggers, disclose some interesting facts. Of the 333,964 persons estimated to be resident in the six mining districts, *one-third* are shown to be engaged in mining pursuits.

“In the Castlemaine district, nearly 50 *per cent.* of the diggers are *Chinese*; in Sandhurst and Ararat only 10 *per cent.*; in Maryborough nearly 20, and in Ballarat and Beechworth 25 *per cent.* Only eight Chinamen are returned as engaged in quartz mining, while the numbers of Europeans thus engaged is 14,000.

“The richest *Quartz reefs* in the colony are those which are included in the Beechworth district, and the poorest in Ballarat; but the enterprise exerted in developing their wealth, appears to be in the inverse ratio to their richness; for while the reefs in the first named district yield on an average 1 oz. 13 dwts. 23 grs. to the ton, and those of Ballarat only 8 dwts. to the ton, yet there are 123 steam-engines, with an aggregate of 2,251 horse power employed in quartz mining operations in the Ballarat, and only 17 steam-engines, with an aggregate of 222 horses, similarly employed in the Beechworth district. There are 165 distinct quartz reefs proved to be auriferous, and an area of 167 square miles of auriferous earth in the Beechworth district, against 117 reefs and 86 miles in the Ballarat district; these figures go to prove that whilst capital and machinery have found remunerative employment in bringing to light the mineral treasures of a district relatively poor in quartz reefs, there is a wide field open to both in a more distant and much richer locality.

“Another discrepancy presents itself in connection with this branch of the subject; and that is the relatively small number of persons engaged in *Quartz mining* in Beechworth as compared with Ballarat, the numbers being 2,927 and 4,085 respectively. Other districts appear to be equally remiss in prosecuting this branch of enterprise, for while the statistics before us show that there are 400 distinct auriferous reefs in the Maryborough district, and that the average yield is upwards of one ounce to the ton, we do not find the value of the machinery

employed at all commensurate with the magnitude of the field operations, although the district contains more quartz miners than either of the other five.

"The approximate value of all the *mining plant* in the colony is stated to be 1,411,012*l.*, and additional machinery is proposed to be erected upon ground recently leased from the Crown, at an outlay of 683,190*l.* Half of this is intended to be employed in the Sandhurst district, and in corroboration of the strictures we have made in reference to the slow progress which is exhibited in working the quartz reefs in the Beechworth district, we may state that only six leases for eighteen acres of ground were in force on the 31st of December last, although it includes 165 reefs, and the average yield is the highest in the colony.

"Indeed, the chief value of these statistics is, that while they denote pretty accurately both the results of mining enterprise in this colony and the means employed, they indicate at the same time the directions in which we are expending capital and labour with the least prospect of return, and those, which although of superior promise, are altogether overlooked. As a map of the mining industry of Victoria, these annual returns are full of interest and instruction, and the best proof which can be afforded of the magnitude and stability of this interest, is to be found in the fact that the value of the *Plant* erected on our gold fields for mining purposes, will shortly amount to 2,000,000*l.* sterling."

V.—*Agriculture in Holland.*

WE obtain the following interesting summary from the *Mark Lane Express*:—

"A recent report to the Foreign Office contains some interesting particulars on the *Agriculture* of Holland, a country from which we import large quantities of live stock, dairy products, wool, and agricultural produce generally. An abstract of the information furnished will, therefore, be useful to our readers.

"The superficial area of the Netherlands is estimated at nearly 8,000,000 statute acres, of which 1,722,500 are under tillage, 2,968,200 in pasture, 555,400 in wood, and 1,747,000 on uncultivated land. The rising price of agricultural produce and the increase of population have of late years greatly encouraged the application of labour and capital to the reclaiming of heath or bog land, and continued additions are made by the artificial means of enclosure from the sea and from the estuaries of the great rivers. No portion of the soil of the kingdom is placed beyond the possibility of being reclaimed by its elevation, since the highest ground in it, with the exception of a very small portion in the southern part of Limburg, does not exceed 360 feet above the mean level of the sea. The manner in which the land is protected from the irruption of the waters by dykes is too well known to need description here. The products of the soil are in the main similar to those of the British Isles; some valuable crops, however, which are either unusual or altogether unknown to us, such as *madder*, *tobacco*, *hemp*, and *chicory*, are to be found in the Netherlands. Rye is the grain most raised, occupying an extent of land in proportion to that sown with wheat, barley, and oats together, as eight to nine, and furnishing the principal food of the lower orders, as well as a considerable portion of the ardent spirits they consume. It is estimated that the quantity of grain grown in the Netherlands is adequate to the consumption of the country, in the shape of food, for the population of three million and a-half. The *average production of wheat to the acre* appears to be 21 bushels, oats 33½, barley 29, and rye 15 bushels. Buckwheat is an extensive crop; the annual produce 3,132,000 bushels, acreage yield nearly 21 bushels. The quantity of potatoes grown in 1859 was 31,000,000 bushels, and the average per acre 121 bushels. About 2,000,000 bushels of coleseed are raised, the yield being about 25 bushels to

the acre. Root crops are receiving more attention. The average yield of mangold-wurzel is 10 tons the acre; of clover $1\frac{1}{2}$ tons. A large smooth-seeded variety of *spurrey* is cultivated to the extent of about 50,000 acres, being found superior to the other pasture grasses in remaining green till a late period in autumn, and often throughout the winter, and it yields $2\frac{1}{2}$ tons to the acre. It is the most nourishing, in proportion to its bulk, of all forage, and gives the best flavoured milk and butter. Spurrey has been recommended for culture in England, but such a plant would never pay the expense of seed and labour even on the poorest soil in this country, for we have many better plants. Chicory averages about $7\frac{1}{2}$ tons to the acre in Holland, and tobacco in Utrecht about $1\frac{1}{2}$ tons per acre.

“To give a further idea of the productive powers of the land, a statement is given showing the average produce for ten years, of the different *crops upon a farm of 182 acres*, cultivated upon an improved rotation system, in North Brabant. This farm obtained the first prize offered by the Royal Agricultural Society of the Netherlands in 1858. The soil is heavy clay, of alluvial origin, and very fertile. It is perhaps necessary to remark that an extract of the farm accounts was furnished with the report, showing that it yields an ample return for the capital, labour, and skill expended upon it. The average yield per acre on this farm for ten years was—wheat 31 bushels, rye $35\frac{1}{4}$, barley $54\frac{1}{2}$, oats $65\frac{1}{3}$, beans $42\frac{1}{2}$, peas 28, coleseed 26 bushels, flax 11*l.* 3*s.* 6*d.* per acre, madder 2 tons, mangold-wurzel $21\frac{1}{2}$ tons. One piece of ground yielded in 1857 at the rate of 32 tons 16 cwt. of mangold-wurzel per acre.

“The *rent of land* in the Netherlands is naturally various, depending upon the quality of the soil, the situation of the farms, the conditions of the leases, and the character of the landholder. There is generally an eager competition for farms, which in some parts of the country is taken advantage of by letting them to the highest bidder in sealed tenders. In the province of *Groningen* much of the land is held by a *fixed tenure*, and it is in that part of the country that the farms present the most striking appearance of prosperity, and the value of land has made the greatest advance. In South Holland, pasture land not in the immediate vicinity of a large town lets from 31*s.* to 34*s.* an acre. Close to the Hague grass-land belonging to the corporation pays a net rent of 5*l.* an acre, after deducting the land-tax and polder (or drainage) expenses, which together amount to about 9 per cent. on the gross rent. A farm in a newly-reclaimed polder in the same province, about four or five leagues distant from several towns of large population, of 188 acres, is let at 196*l.* The highest rent paid in Zeeland is 44*s.* per acre. In Friesland, arable land on the clay brings from 168*s.* to 102*s.* pasture from 34*s.* to 68*s.*; on the sand 24*s.* to 34*s.*, land from which turf has been dug 14*s.* to 24*s.* In Groningen, clay land (arable) lets for 27*s.* to 75*s.*, sandy soil 24*s.* to 41*s.*, turf-land for the buckwheat crop 88*s.* to 96*s.*, and the best grass-land at 81*s.* the acre. In North Holland good land favourably situated brings from 48*s.* to 84*s.* for grass, and the best arable 72*s.* to 132*s.*, while garden ground in the neighbourhood of Haarlem, where a large quantity of flower roots is raised for exportation, lets as high as 12*l.* an acre.

“The *wages of agricultural labourers* vary in North Holland from 1*s.* 4*d.* to 3*s.* 4*d.* per day in summer, and from 10*d.* to 1*s.* 10*d.* in winter. In Groningen hands are stated to be scarce and wages high. Day labourers earn 1*s.* 3*d.* per day in summer for $8\frac{1}{2}$ hours' work, in winter 1*s.* for 7 hours; women, 6*d.* to 7*d.* for $7\frac{1}{2}$ hours' work in summer and 6 hours in winter. Permanent labourers are generally paid by piecework, at rates fixed by custom. A foreman is generally kept on board, receiving $7\frac{1}{2}$ *d.* per day for the summer half-year and 6*d.* for the winter. Others are employed at yearly wages, besides their board, of 6*l.* 6*s.* to 8*l.* 8*s.*; and some have two or three perches of land besides, for growing potatoes, &c., for their families. The whole annual outlay for labour on one farm of 192 acres is stated at 292*l.*; on another of 190 acres at 250*l.*, of which 170 was for permanent labour, and 80*l.* for harvest, weeding, &c.

“In the four farms which competed for the Agricultural Society's prizes in 1858 the *amount of capital employed* on each was respectively at the rate of

10*l.* 6*s.* 1*d.*, 7*l.* 3*s.* 1*d.*, 5*l.* 17*s.* 5*d.*, and 4*l.* 10*s.* 8*d.* per acre. Two of these were in South Holland, one in Groningen, and one (which obtained the first prize) in North Brabant.

“ Besides the Government, provincial, and commercial taxes, the land is liable to charges on account of the management of the water administration and polders. These last in some districts are to a considerable amount; in many polders in North Holland as much as 10*s.* 3½*d.* per acre. Another burden upon land in Holland is the tithe charge, where it has not yet been redeemed. More than one attempt has been made to pass through the legislature a measure for the compulsory redemption upon equitable terms of this charge, so obstructive to all agricultural improvement, but hitherto without success.

“ The live stock in Holland in 1859 consisted of the following —horses, 236,732; horned cattle, 1,232,199 (of which 884,946 were cows); asses and mules, 3,000; sheep, 795,897; pigs, 259,031; and goats, 111,404. The very large proportion of cattle to other descriptions of animals is a noticeable feature. Pleuropneumonia has committed great ravages in the herds of Holland in the last few years, a subject to which we may have occasion to revert hereafter.”

VI.—*Trade of Persia, 1860.*

WE obtain the following from the *Times*:—

“ Some trade reports from British consuls have recently been issued by the Board of Trade, and among them a report from the Acting Consul-General at Tabreez, giving an account of Azerbaijan, the most important province of Persia. Its capital, *Tabreez*, of which the population is estimated at 200,000, is the principal emporium of Persian trade. The imports through and from Turkey into Azerbaijan amounted, in 1859, to nearly 2,000,000*l.*, dyed and printed cotton goods being the largest item (comprising several descriptions of British coloured cotton manufactures), and British grey calicoes the next; large quantities of the latter are cut up at Tabreez into small pieces, dyed blue, and then sent to Russia as Persian manufactures. Broadcloths, and most of the miscellaneous goods, are from Germany. Indigo is an article of great consumption in Tabreez, and is imported direct from India.

“ *The exports to Russia* amounted, in 1859, to nearly 800,000*l.*, half of them smuggled; they include the higher qualities of British prints, Swiss manufactures, European and Persian silks, tea, and rum. A small quantity of silk pieces is manufactured in Tabreez, coarser, but more durable than European silks; felt carpets also, and other coarse carpets. The growth of wheat and barley is large. The cotton is of inferior quality. There is coal, but it is not used; and copper and iron viens, but they are almost entirely neglected, and a supply obtained from Russia. The climate of the province generally is healthy and bracing, the soil fertile, and the inhabitants hardy, active, and industrious.

“ The revenue is nearly 500,000*l.*, but this sum is said to be far from representing the amount really collected from the taxpayers. The revenue of each village is farmed or assigned to a Government officer in ‘teeool’ (a kind of fief), but the taxes are underrated to him; two-thirds are taken by him and one-third by the proprietor of the village. The taxes include one-third of the grain produce, a tax on gardens and on fields used for the cultivation of tobacco, cotton, or madder roots, a house tax of 10*s.* 2*d.* on every family, a tax of 2*s.* 3*d.* on mares and mules, and of 4*d.* on sheep and goats; besides which the villagers have to furnish gratis to the teeool-holder a certain quantity of lambs, fowls, eggs, milk, wood, &c., and a certain number of labourers if required. But the peasantry are patient so long as they are not reduced to absolute starvation. The *internal transit duties* are a

serious obstacle to the extension of commerce ; every small town levies its duties on the goods that pass through it. The want of cart roads is also a great hindrance ; everything is transported on mules, horses, camels, or asses.

“ If these things were remedied, cart roads constructed, and a moderate duty made payable once for all on importation or exportation, the trade of Persia would rapidly develop itself to a very considerable extent ; and next to Persia, Great Britain would derive most benefit from these reforms. As it is, the consumption of British manufactures in Persia has increased nearly fourfold within the last twenty years.”

VII.—The Trade in Oranges.

WE obtain the following from the *Gardeners’ Chronicle* : —

“ Oranges are imported in boxes containing from 250 and more, and in chests holding 500 to 1,000. The quantity of this fruit imported has been steadily increasing for some years past. In the three years ending with 1842 the average imports were 334,070 boxes ; in the five years ending with 1850 they had increased to 380,000 boxes. Since then the quantity has been computed in *bushels*. The average annual imports in the five years ending with 1860 were 977,440 bushels. The quantity taken for consumption has now reached upwards of 1,000,000 bushels, and, assuming each bushel to contain 650, this would give 650 millions of oranges, or about 22 for each soul of the population in the kingdom. The appended figures indicate the source of supply of this fruit to Great Britain in bushels :—

	1855.	1860.
Portugal	265,222	218,480
Azores	369,060	627,709
Spain	72,928	158,674
Sicily	85,327	140,983
Other quarters	13,615	8,564
	806,153	1,154,410

“ The Azores or Western Islands, from whence the finest or St. Michael oranges come, it will be seen furnish us with the largest supply. The imports from thence have *doubled* in the last five years.

“ The expense of walling and planting an acre of orange garden is stated to be about 15*l.* for the wall, 8*l.* for 65 trees, and 2*l.* for labour. It yields half a crop of beans or Indian corn during seven years, but no oranges ; from eight to eleven years half a crop of oranges is obtained. Afterwards a full crop, which is sold for 10*l.* to 15*l.* Each tree on arriving at maturity will produce annually, on an average, 12,000 to 16,000 oranges ; one grower is said to have picked 26,000 from a single tree. The trees bloom in March and April, and oranges are gathered for the London market as early as November. The Portuguese never eat them before the end of January, at which time they possess their full flavour.

“ In the season of 1851, which produced by no means an unusually large crop, not less than 353 cargoes of oranges, containing about 200,000 large boxes, holding 800 oranges, were shipped from the Western Islands. Fayal formerly exported a great many oranges, but the insect pest, which appeared in 1840, in a few years killed all the trees there. Terceira annually exports about thirty cargoes, and St. Mary a few cargoes, but St. Michael is the great mart.

“In 1801 the value of the fruit imported from thence was but 10,000*l.*; in 1850, 65,000*l.*; and in 1859, 84,123*l.* It was estimated that the produce of fruit in this island during 1859 was 252,000,000 of oranges and 40,000 lemons; of these all the lemons and 49,000,000 oranges were consumed on the island. The export of oranges from St. Michael was 179,379 boxes in 1852; 123,327 boxes in 1855-6; 100,079 in 1856-7; 179,922 in 1857-8; and 130,858 boxes in 1858-9. The trade has been suffering for several years from severe depression, owing to the low prices obtained for the fruit in England. In the season 1858-9 the growers obtained an average of 10*s.* 5*d.* per box, which is considered a very fair remunerative price by the proprietors of orange gardens. More than half the orange crop is shipped in the months of November and December. The value of the fruit imported now reaches nearly 600,000*l.* annually.”

VIII.—*The Extent of the Deficit in the Cotton Supply.*

THE following letter in the *Times*, from a “Cotton Broker,” at Liverpool, dated 23rd July, 1862, is inserted as a useful statement of the facts at that date:—

“On the 5th and 11th of February (1862), you were kind enough to insert two letters of mine upon the then relative cheapness of East Indian cotton as compared with American, the feasibility of its being used by our spinners with a proper alteration of their machinery, and the great necessity there existed of their doing so with the almost certain stoppage of the American supply during this year, and thereby encouraging the importation of cotton from India, to supply the deficiency which would be caused by the entire absence of a crop which previously had supplied four-fifths of the consumption of the world.

“Subsequent events have fully proved the advice to be correct which I then presumed to give spinners and manufacturers. A fair trial soon enabled them to ascertain that East Indian cotton was capable of supplying the place of American cotton, and that yarn of finer numbers than they ever contemplated could be produced from Surats when their skill and ingenuity had been brought fully into play by the necessity of their position. Hence the fact that from the 1st of January last to the present date, spinners have purchased in this market and consumed 438,000 bales of Surat cotton, and only 198,000 American; while last year, during the same period, they consumed 1,130,000 American, and only 115,000 Surats. Thus the capability of East Indian cotton being made available as a substitute for American, is, I think, settled, and the great improvement in its quality that has latterly taken place, and which the present high scale of prices will still further stimulate, gives every encouragement that from India alone we shall ultimately receive such a supply as will make us independent of the United States of America, and which now appears so necessary for the future welfare of our manufacturing interests,—considering the great uncertainty that now exists, first as to the probable duration of the civil war in America, and secondly as to the possibility of its causing a permanent curtailment in the growth of cotton in the Southern States.

“At the close of last year the estimated consumption of the world was over 5,000,000 bales per annum, *four-fifths* of which was supplied by America. At the present moment *nearly one year's* American crop has been withheld, and even so far how serious is the result! How necessary, therefore, it is that our true position should be clearly understood, so that the danger being evident the remedy may be sought for, and by timely application save us from still greater peril and injury.

“So far this year, compared with the same period of 1861, the import of American shows a decrease of 1,400,000 bales, while East Indian cotton during the

same period only shows an increase of 160,000 bales, while the quantity now at sea for Europe from America is *nil* against nearly 300,000, and that of East Indian to arrive by the end of October, is 402,000 bales against 391,000 bales at the same period last year.

“ Last week in your columns it was stated that private telegrams had been received from Bombay, advising a further shipment of 115,000 bales of cotton *in one week* to this country, and that it was expected, that when the advices would be received hence of the late important rise in prices, that still further extensive shipments would be immediately made.

“ Now, as I am assured you will be glad to correct any error which may inadvertently be inserted in your columns, I take the liberty of stating that the Bombay letters and circulars by this same mail have to-day been received, and, instead of 115,000 bales stated to be shipped in one week, it appears that only 28,000 bales were shipped in two weeks ending on that date against 72,000 bales during the same period last year, and that only about 85,000 bales were then in stock, and on ship-board; also that the monsoon which either had, or was about setting in, would almost prevent any cotton being received coastwise or from the interior until the beginning of October, so that it was quite improbable that over 100,000 bales more could be shipped in sufficient time to arrive here before the close of the present year.

“ Thus the prospective supply from India for the remainder of this year, will be no greater than we received during the same period last year. Then we received 495,200 bales of *East Indian* cotton, while this year, with the cotton now afloat and the probable quantity yet to be shipped to arrive before the 31st of December (1862), the quantity will barely exceed that amount.

“ I have been privileged by the perusal of letters received by the most eminent of India houses, from their firms of Bombay, and also by conversation with several gentlemen from India now here, who are well acquainted with that country, all of whose testimony fully confirms and corroborates this view of the supply to be received from India this year.

“ You will therefore perceive how critical is our present position, and how necessary it is that every effort should be made to stimulate the bringing down of cotton to the ports of India, so as to admit of immediate shipment; for after a period of ten months, during which the spinners and manufacturers of Europe have been working ‘half-time,’ the supply of cotton on hand and that on the way is still miserably small, and quite incompatible with the necessities of the world, as the following figures will show :—

*Visible Stocks in Europe, and American and East Indian at Sea,
July, 1862.*

	1862.	1861.
Great Britain	180,000	1,150,000
France	40,000	350,000
Germany	5,000	75,000
Russia	5,000	40,000
Spain	1,500	10,000
Italy.....	1,500	15,000
	233,000	1,640,000
At sea :—		
In spinners' hands	50,000	180,000
American	—	300,000
East Indian	402,000	391,000
Total supply	685,000	2,511,000

“ Thus the stock now on hand in Europe, and of East Indian and American to arrive by the end of October, is only 685,000 bales, against 2,511,000 at the same period, 1861. Such a comparatively small supply for the next three months will naturally strike those who may even not be conversant with the trade how critical is our position at the present moment, and how necessary it is that renewed efforts should be made to obtain from India, now our only hope, as large a proportion as possible of the supply of cotton which Europe now requires to meet the consumption of cotton goods going on.

“ Permit me to thank you for the able manner in which you have so frequently of late discussed this question, and for having so clearly pointed out to *spinners* that the question rests with themselves alone; for did they but entertain a wise appreciation of their position we should not have witnessed, as of late, wealthy and extensive firms, with large stocks, purchased at prices considerably under the present rates, sending back their cotton to be re-sold at Liverpool, preferring to secure the profit which a re-sale would secure them, although they can only do so by stopping their mills and throwing out of employment their operatives, who are thus left without occupation or support other than they can obtain from parochial relief. Can anything be more discouraging to importers, and will such a course induce greater efforts throughout the world to meet their necessities?

“ The existing machinery in Europe, if worked full time, would require nearly 100,000 bales of cotton *per week*. What then is to be our position if (as now seems most probable) the American war should last another year? Still greater distress, misery, and ruin throughout the manufacturing districts would be certain to ensue. This can only be averted by immediate and decisive steps being taken to secure all the cotton it is possible to obtain from India. It is an extraordinary fact that, long as that country has been under the government of Great Britain, so little is known either by Government or by the commercial public as the annual growth of cotton in India. Various estimates are current. Some place it from 5,000,000 to 6,000,000 bales, while others who have been long in India, place it at from 2,000,000 to 3,000,000 bales per annum.

“ The importance of the coming crisis will be well understood by a consideration of the following table, showing the actual exports of cloth and yarn from this country to foreign countries in the first eleven months of 1860 and 1861, and in the first five months of 1862:—

Exports.	Cloth.	Yarn.
	yards.	lbs.
Eleven months, 1860	2,473,305,938	180,586,663
„ 1861	2,378,084,212	168,642,773
Five months, 1862	753,896,280	44,487,245

ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN

OF THE

MARRIAGES IN ENGLAND AND WALES DURING THE FIRST QUARTER

(JANUARY—MARCH) OF 1862, AND OF THE BIRTHS AND DEATHS

DURING THE SECOND QUARTER (APRIL—JUNE) OF 1862.

THIS Return comprises the BIRTHS and DEATHS registered by 2,199 Registrars in all the districts of England during the spring quarter that ended on June 30th, 1862; and the MARRIAGES in 12,562 churches or chapels, about 4,625 registered places of worship unconnected with the Established Church, and 637 Superintendent Registrars' offices, in the quarter that ended on March 31st, 1862.

The leading facts that are disclosed in this return are of a mixed character; they are *favourable generally*, as regards the health and growth of the population, but they are not without indications of a diminished prosperity in important districts of the country. The *marriage-rate*, which had been low during the whole of the year 1861, *continued low* in the first quarter of the present year. Births were numerous in the three months that ended 30th June. A *birth-rate above* the average degree of activity has prevailed during the last fifteen months. The *mortality* was *below* the average; and it is satisfactory to add, that the healthy summer of 1860 inaugurated a period which has been extended through two years, and in which the *mortality has not* in any quarter reached the average. Atmospheric agencies of a beneficial character have been at work in that time; but public bodies that have projected and successfully carried out local improvements may claim the credit of having contributed in a great degree to produce this result.

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, *returned in the Years 1856-62, and in the QUARTERS of those Years.*

Calendar YEARS, 1856-62 :—Numbers.

Years	'62.	'61.	'60.	'59.	'58.	'57.	'56.
Marriages No.	—	163,745	170,156	167,723	156,070	159,097	159,337
Births	—	695,562	684,048	689,881	655,481	663,071	657,453
Deaths.....	—	435,337	422,721	440,781	449,656	419,815	390,506

QUARTERS of each Calendar Year 1856-62.

(I.) MARRIAGES :—*Numbers.*

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	33,976	33,401	35,150	35,382	29,918	33,321	33,427
June ,,	—	41,966	43,777	42,042	39,890	41,267	38,820
Septmbr..... ,,	—	39,892	40,541	39,803	38,599	38,669	39,089
Decmbr. ,,	—	48,486	50,688	50,496	47,663	45,840	48,001

QUARTERS of each Calendar Year, 1856-62.

(II.) BIRTHS:—Numbers.

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	182,005	173,170	183,180	175,532	170,959	170,430	169,250
June ,	185,638	184,718	174,028	175,864	169,115	170,444	173,263
Septmbr. ,	—	171,500	164,121	168,394	157,445	161,181	157,462
Decmbr. ,	—	166,174	162,719	170,091	157,962	161,016	157,478

(III.) DEATHS:—Numbers.

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	122,192	121,713	122,617	121,580	125,819	108,665	103,014
June ,	107,555	107,721	110,869	105,631	107,142	100,046	100,099
Septmbr. ,	—	100,986	86,312	104,216	98,142	100,528	91,155
Decmbr. ,	—	104,917	102,923	109,354	118,553	110,576	96,238

MARRIAGES.—In the first three months of this year, 67,952 persons were married in England. They married at the rate (per annum) of 1·360 in 100 of the population, whilst the average of corresponding quarters in the years 1852-61 is 1·405. But the marriage-rate was not so low as it had been in the same quarter of 1858, when it declined to 1·252, and when, to quote the words of the report for that period, “the stagnation of trade in the manufacturing districts had cast a shadow over the prospects of the people, and they did not marry.”

The *population* of Lancashire has undoubtedly *increased* during the last five years, and while this circumstance is borne in mind, it may be stated that the marriages in that county in the winter quarter of 1858 were 4,157; in that of 1860 they were 5,524; and in the same quarter of this year 4,887.

It may be anticipated, that when the marriage results in Lancashire for the

ENGLAND:—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1856-62, and the QUARTERS of those Years.*

Calendar YEARS, 1856-62:—General Percentage Results.

YEARS	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
Estmtd. Popln. of England in thousands in middle of each Year....	20,341	—	20,119	19,903	19,687	19,471	19,257	19,043
Persons Married Per ct.	—	1·684	1·628	1·710	1·704	1·604	1·652	1·674
<i>Births</i> ,	—	3·420	3·457	3·437	3·504	3·366	3·443	3·453
<i>Deaths</i> ,	—	2·221	2·164	2·124	2·239	2·309	2·180	2·051

QUARTERS of each Calendar Year, 1856-62.

(I.) PERSONS MARRIED :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	1·360	1·405	1·352	1·422	1·464	1·252	1·410	1·414
June..... „	—	1·709	1·676	1·766	1·716	1·646	1·722	1·638
Septmbr. „	—	1·616	1·572	1·614	1·602	1·570	1·592	1·626
Decmbr. „	—	1·991	1·904	2·012	2·026	1·934	1·880	1·992

(II.) BIRTHS :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	3·644	3·588	3·505	3·707	3·631	3·576	3·604	3·580
June „	3·666	3·571	3·687	3·512	3·588	3·488	3·555	3·655
Septmbr. „	—	3·285	3·377	3·267	3·389	3·204	3·316	3·276
Decmbr. „	—	3·231	3·264	3·230	3·414	3·205	3·304	3·267

(III.) DEATHS :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	2·447	2·489	2·463	2·481	2·515	2·631	2·298	2·179
June..... „	2·124	2·201	2·150	2·237	2·155	2·210	2·087	2·111
Septmbr. „	—	2·220	1·989	1·718	2·097	1·997	2·068	1·896
Decmbr. „	—	2·171	2·061	2·043	2·195	2·406	2·269	1·997

June quarter are ascertained, the effect of a season of depression worse than that of 1858 will be manifested in the returns more conspicuously.

By comparing the numbers of *marriages* in the *winter quarters* of 1861-2, it will be seen that there was an *increase* in London and in the ten other divisions of England, with the exception of the Eastern Counties, where there was a decrease, of the North Midland counties, where the number was stationary, and of the *North-western counties*, where there was an *important decrease* in consequence of a reduction of the marriage-rate in Lancashire, which forms the chief part of the division.

In Liverpool the *marriages* decreased from 827 in the winter or March quarter of 1861 to 785 in that of 1862; in Wigan from 228 to 186; in Bury from 210 to 173; in Chorlton from 131 to 93; in Salford from 143 to 125; in Manchester from 952 to 830; in Ashton from 275 to 225; in Oldham from 215 to 172; in Rochdale from 223 to 169; in Haslingden from 170 to 142; in Burnley from 185 to 128; in Blackburn from 259 to 216; in Preston from 265 to 220. In the iron district of Ulverstone, in the north-west of Lancashire, the marriages appear to have been fairly maintained; and the report of the Registrar of Dalton in that district is cheerful amid the gloom. He says:—"There is no distress in

the sub-district; men are fully employed, and wages are good according to the price of food."

BIRTHS.—The number of *children born* in the spring quarter (ending 30th June) was 185,638. The birth-rate, was 3·666 to 100 of the population. The average rate is 3·571. If last quarter is compared with the corresponding quarter of 1861, it will be found that the *birth-rate was nearly the same* in the two periods. But assuming that there was an increase of population within the last

CONSOLS, PROVISIONS, PAUPERISM, and TEMPERATURE, in each of the Nine
QUARTERS ended 30th June, 1862.

1	2	3	4		5	6	7		8	9
Quarters ending	Average Price of Consols (for Money).	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at Leadenhall and Newgate Markets (by the Carcase), with the <i>Mean</i> Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism.		Mean Tem- pera- ture.		
						Quarterly Average of the Number of Paupers relieved on the <i>last day</i> of each week.				
			Beef.	Mutton.		In-door.	Out-door.			
1860	£	s. d.	d. d. d.	d. d. d.	s. s. s.					
30 June	94 $\frac{7}{8}$	52 8	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	5 $\frac{1}{2}$ —7 $\frac{1}{2}$ 6 $\frac{1}{2}$	125—160 142	107,050	692,384	50·5		
30 Sept.	93 $\frac{2}{8}$	59 1	4 $\frac{1}{4}$ —7 5 $\frac{5}{8}$	5 $\frac{1}{4}$ —7 $\frac{1}{2}$ 6 $\frac{3}{8}$	125—145 135	101,680	667,680	56·2		
31 Dec.	93 $\frac{2}{8}$	56 9	3 $\frac{1}{2}$ —6 $\frac{1}{4}$ 4 $\frac{7}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	115—130 122	115,158	673,680	42·6		
1861										
31 Mar.	91 $\frac{6}{8}$	55 1	4—6 $\frac{1}{4}$ 5 $\frac{1}{8}$	5 $\frac{1}{2}$ —7 $\frac{3}{4}$ 6 $\frac{5}{8}$	140—155 147	131,501	758,441	39·9		
30 June	91 $\frac{6}{8}$	54 9	4 $\frac{1}{4}$ —6 $\frac{1}{2}$ 5 $\frac{3}{8}$	5 $\frac{1}{4}$ —7 $\frac{1}{4}$ 6 $\frac{1}{4}$	120—140 130	117,802	713,785	51·8		
30 Sept.	91 $\frac{3}{8}$	52 1	4 $\frac{1}{4}$ —6 $\frac{1}{2}$ 5 $\frac{3}{8}$	4 $\frac{7}{8}$ —7 5 $\frac{7}{8}$	85—110 97	112,932	693,649	60·4		
31 Dec.	93 $\frac{2}{8}$	59 3	4—6 $\frac{1}{4}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{3}{4}$ 5 $\frac{3}{4}$	110—130 120	128,533	716,096	45·5		
1862										
31 Mar.	93 $\frac{1}{8}$	60 1	4—6 $\frac{1}{4}$ 5 $\frac{1}{8}$	4 $\frac{3}{4}$ —6 $\frac{1}{2}$ 5 $\frac{5}{8}$	130—155 142	143,926	804,272	41·1		
30 June	93 $\frac{6}{8}$	56 8	4—6 5	5—7 6	180—200 190	127,863	781,858	53·3		

Col. 6 is deduced from the Weekly Tables published in the *Economist*. The *average* of the highest and of the lowest *weekly* prices is here shown in cols. 4, 5, and 6, and not the *absolute* highest or lowest price quoted at any period of the quarter.

Cols. 7 and 8 are deduced from the Returns of the Poor Law Board. The Returns now relate to 649 Unions, &c., comprising a population of 19,812,000 (in 1861), and do not include the paupers of parishes, &c., incorporated under Gilbert's Act, or still under the 43rd Elizabeth; Lunatic Paupers in Asylums and Vagrants relieved in the above Unions are also excluded. They amounted on January 1st, 1862, to—Insane Persons, 31,554; Vagrants, 1,542. The rest of the paupers on that day amounted to 817,800.

year in each of the eleven divisions, there was a *decrease* of the birth-rate in London in last spring quarter on that of the same quarter in 1861; there was also a decrease in six other divisions; whilst the birth-rate increased or was tolerably well maintained in Lancashire and Cheshire, in Yorkshire, in Durham, Northumberland, and Wales.

The general result, that the *birth-rate exceeded the average*, appears to be chiefly due to the northern parts of the kingdom.

London returned 24,851 births last quarter; Lancashire with a less population returned 25,886. Births were numerous in Liverpool.

INCREASE OF POPULATION.—The *births* in the quarter *exceeded* the deaths in the same time by 78,083; and the population, if it had been free from disturbance by migration, would have increased at the rate of 858 persons daily.

Last quarter 47,112 persons, of whom about 14,296 were of English origin,* and nearly twice that number were Irish, left ports in the United Kingdom at which there are Government Emigration Officers, for the United States, the Colonies, and other parts.

The *emigration* to the *United States* has, during a succession of years, suffered a rapid rate of *reduction*, but last quarter the number of persons who went thither slightly exceeded that of the same period in 1861. But the *emigration* to *British North America* has in late years been constantly on the increase; and that to the Australian Colonies gained last quarter a considerable accession. Notwithstanding these fluctuations, the return shows that the United States still received more than half of the emigrants who sailed from these shores.

PRICES, THE WEATHER, AND PAUPERISM.—The average price of Consols was 93⁶/₈, which is higher than it had been in any quarter since the middle of 1860. The average price of *wheat* per quarter was 56s. 8d. It was higher than that of the same period in either of the two previous years. The mean price of *beef* sold by the carcase at Leadenhall and Newgate markets was 5d. per lb.; the best quality was 6d., and cheaper than it had been, taking the average quarterly prices, for a considerable time. The highest and lowest prices of mutton, if the means are taken, were 5d. and 7d., and were lower than the prices of the June quarter in the last two years.

MR. GLAISHER in his report on the weather (see appendix) states that at Greenwich the *warm weather* which set in on the 24th of *March*, continued till the 7th of *April*; it was followed by a cold period of eight days duration, after which, on the 17th, very warm weather began and with occasional interruptions continued till the 8th *June*. On the 25th *April* the mean temperature was 12°·6 in excess of the average of that day, and on several days in *May* also the excess was remarkable. *Cold weather* commenced on the 9th of *June* and continued till the end of the month. The mean temperature of *April* was higher than that of any *April* since 1854; that of *May* was higher than it had been in this month since 1848; whilst the *June* of this year was the *coldest* that has occurred since 1854. The mean temperature of the three months was 53°·3, which slightly exceeds the average of the same period in twenty-one years. The amount of *rain* at Greenwich was 7·4 in. More than the average quantity fell in *April*. Snow fell throughout the greater part of the country on the 12th and 13th of *April*; at Guernsey and Brighton on the 14th *April*; and at Grantham on 9th *May*. The heaviest falls of rain were at Stonyhurst, Allenheads, and Cockermouth. At the first of these places the amount in the quarter was nearly 15 inches.

Some remarks on the progress of vegetation and the state of the crops have been made by observers at several of the meteorological stations.

* From a Return with which the Registrar-General has been favoured by the Emigration Commissioners: the number returned as of English origin was 12,425. while the birthplace of 6,166 emigrants was not distinguished; in the above statement a proportional number of these has been added to those returned as of English origin.

The tables of *pauperism* exhibit heavier totals. The quarterly averages of the number of in-door paupers relieved on the last day of each week in the June quarter of 1860 were 107,050; in that of 1861 they were 117,802; and in that of the present year 127,863. In the same three periods the out-door paupers rose according to the following numbers:—

692,384; 713,785; 781,858.

STATE OF THE PUBLIC HEALTH.—The total number of *deaths* registered in the three months was 107,555. In the same period of 1860-1 the numbers were respectively 110,869 and 107,721; whence it appears that in an increasing population decreasing numbers were entered in the records in the last two spring quarters. The annual rates of mortality in the three seasons now compared were 2·237 per cent.; 2·150; 2·124. The average obtained from returns in ten years is 2·201 per cent. The weather generally was favourable to health; and in many parts the purifying agency of rain was supplied in aid of sanitary expedients, or perhaps as a partial remedy for the want of them.

DEATHS in the Spring Quarters, ended 30th June, 1855-62.—Numbers.

DEATHS, &c.	1862.	Total 1852-61, (10 Years.)	1861.	1860.	1859.	1858.	1857.	1856.	1855.
In 125 Districts and 23 Sub-districts, comprising the <i>Chief Towns</i>	56,884	535,082	55,882	56,054	53,517	55,302	51,367	51,963	53,562
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly Small Towns and <i>Country Parishes</i> ...	50,671	512,777	51,839	54,815	52,114	51,840	48,679	48,137	52,931
All England	107,555	1,048,859	107,721	110,869	105,631	107,142	100,046	100,099	106,493

AREA, POPULATION, DEATHS, and MORTALITY per Cent. in the Spring Quarters, ended 30th June, 1852-62.

GROUPS.	Area in Statute Acres. (England.)	Population Enumerated. (England.)		Deaths in 10 Spring Quarters, 1852-61.	Average Annual Rate of Mortality per Cent. of 10 Spring Quarters, 1852-61.	Annual Rate of Mortality per Cent. in the Spring Quarter, 1862.
		March 31st, 1851.	April 8th, 1861.			
In 125 Districts, and 23 Sub-districts, comprising the <i>Chief Towns</i>	No. 2,149,800	No. 8,247,017	No. 9,806,780	No. 536,082	Per ct. 2·366	Per ct. 2·282
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly <i>Small Towns and Country Parishes</i>	35,175,115	9,680,592	10,259,444	512,777	2·056	1·968
All England	37,324,915	17,927,609	20,066,224	1,048,859	2·201	2·124

The *rate of mortality* in the districts which comprise the *chief towns* was 2·282. In the small towns and country parishes it was 1·968. These rates may be compared with their respective averages, which were 2·366 and 2·056. The benefit was equally shared between town and country.

MARRIAGES Registered in Quarters ended 31st March, 1862-60; and
BIRTHS and DEATHS in Quarters ended 30th June, 1862-60.

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1861. (Persons.) No.	4 5 6 MARRIAGES in Quarters ended 31st March.		
			'62. No.	'61. No.	'60. No.
ENGLD. & WALES....Totals	37,324,883	20,066,224	33,976	33,401	35,150
I. London	77,997	2,803,989	5,752	5,346	5,665
II. South-Eastern	4,065,935	1,847,661	2,575	2,429	2,511
III. South Midland	3,201,290	1,295,497	1,642	1,557	1,662
IV. Eastern	3,214,099	1,142,580	1,438	1,500	1,486
V. South-Western	4,993,660	1,835,714	3,072	2,999	3,215
VI. West Midland	3,865,332	2,436,568	4,016	3,838	4,013
VII. North Midland	3,540,797	1,288,928	1,805	1,813	1,971
VIII. North-Western	2,000,227	2,935,540	5,711	6,198	6,370
IX. Yorkshire	3,654,636	2,015,541	3,832	3,763	4,017
X. Northern	3,492,322	1,151,372	2,120	2,013	2,057
XI. Monmthsh. & Wales	5,218,588	1,312,834	2,013	1,945	2,183

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 30th June.			11 12 13 DEATHS in Quarters ended 30th June.		
	'62. No.	'61. No.	'60. No.	'62. No.	'61. No.	'60. No.
ENGLD. & WALES....Totals	185,638	184,718	174,028	107,555	107,721	110,869
I. London	24,851	24,842	22,251	15,695	15,238	14,932
II. South-Eastern	14,859	14,856	13,650	8,148	8,252	9,214
III. South Midland	11,179	11,423	10,868	6,227	6,519	7,031
IV. Eastern	9,730	9,995	9,547	5,508	6,094	6,226
V. South-Western	15,282	15,577	14,524	8,809	8,614	10,055
VI. West Midland	23,439	23,444	22,313	12,355	12,722	12,969
VII. North Midland	11,667	11,795	11,495	6,533	6,960	6,912
VIII. North-Western	30,634	29,790	27,500	18,017	17,652	17,650
IX. Yorkshire	19,772	19,593	19,008	11,916	11,617	11,877
X. Northern	12,082	11,366	11,065	6,815	6,569	6,326
XI. Monmthsh. & Wales	12,143	12,037	11,807	7,532	7,484	7,677

REMARKS ON THE WEATHER

DURING THE QUARTER ENDING 30TH JUNE, 1862.

By JAMES GLAISHER, ESQ., F.R.S., &c., *Sec. of the British Meteorological Society.*

The warm weather which set in on the 24th March, continued only till the 7th of April; the mean daily excess from the 1st of April was 5° . On the 8th of April a cold period set in, which continued till the 16th, the mean daily defect being 5° . This was succeeded by a period of very warm weather, which continued, with the exception of the 3rd, 9th, 13th, 14th, 15th, 21st, and 22nd May, and the 5th of June, until the 8th of June; the mean daily excess of the 53 days ending the 8th of June, was 3° nearly. On several days during this period the weather was above its average to large amounts, as on the 25th of April it was $12^{\circ}6$ in excess; the 4th, 5th, and 6th of May were $8^{\circ}5$, $11^{\circ}1$, and $13^{\circ}6$ in excess. On the 9th of June a cold period set in, which continued till the end of the month, the mean daily defect being greater than 4° . The *average temperature* for the month of April was $48^{\circ}4$, being 4° higher than in 1861, and higher than in any April since 1854. That for May was $55^{\circ}4$, being $3\frac{1}{2}^{\circ}$ higher than in 1861, and higher than any May since 1848. In June it was $56^{\circ}3$, being 3° lower than in 1861, and lower than any June since 1854.

The mean high day temperature in April was $0^{\circ}8$ in excess, in May 2° in excess, and in June $4^{\circ}1$ in defect of their respective averages.

The mean low night temperature in April was $3^{\circ}2$ above, in May $3^{\circ}8$ above, and in June $0^{\circ}9$ below their respective averages.

Therefore both the days and nights in April and May were warm, the night more so than the days; and in June both were cold, the nights less in amount than the days.

The mean temperature of the air was $2^{\circ}1$ in excess in April, $2^{\circ}6$ in excess in May, and $2^{\circ}9$ in defect in June; and this is the first month in the present year in which the mean temperature has been below its average.

The mean temperature of the dew point was $3^{\circ}1$ in excess in April, $4^{\circ}9$ in excess in May, and $1^{\circ}6$ in defect in June; the mean for the quarter was a little more than 2° in excess.

The mean pressure of the atmosphere was 0.1 inch in excess in April, 0.04 inch in defect in May, and 0.08 inch in defect in June.

The fall of rain in April and May was 2.8 inches in each month, and in June was 1.8 inch; the total fall for the quarter was nearly $7\frac{1}{2}$ inches, exceeding the average of the preceding 43 years by a little more than $1\frac{1}{2}$ inch.

The mean temperature of the air at Greenwich for the three months ending May, constituting the three spring months, was $48^{\circ}9$, being $2^{\circ}5$ in excess of the average of the preceding 91 years.

1862. Months.		Temperature of									Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
		Air.			Evaporation.		Dew Point.		Air— Daily Range.						Water of the Thames
		Mean.	Diff. from Aver- age of 91 Years.	Diff. from Aver- age of 21 Years.	Mean.	Diff. from Aver- age of 21 Years.	Mean.	Diff. from Aver- age of 21 Years.	Mean.	Diff. from Aver- age of 21 Years.				
April	48·4	+2·6	+2·1	45·8	+2·5	43·0	+3·1	15·8	-2·4	50·5	·277	+·030	3·1	+0·2
May	55·4	+2·9	+2·6	52·8	+3·7	50·3	+4·9	18·5	-1·8	58·0	·365	+·065	4·0	+0·6
June	56·3	-1·8	-2·9	52·7	-2·1	49·3	-1·6	17·8	-3·1	60·2	·352	-·022	4·0	-0·2
Mean.....	53·3	+1·2	+0·6	50·4	+1·3	47·5	+2·1	17·3	-2·4	56·2	·331	+·024	3·7	+0·2

1862. Months.		Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Hori- zontal Move- ment of the Air.	Reading of Thermometer on Grass.				
		Mean.	Diff. from Aver- age of 21 Years.	Mean.	Diff. from Aver- age of 21 Years.	Mean.	Diff. from Aver- age of 21 Years.	Amnt.	Diff. from Aver- age of 46 Years.		Number of Nights it was			Low- est Read- ing at Night.	High- est Read- ing at Night.
											At or below 30°.	Be- tween 30° and 40°.	Above 40°.		
April	81	+ 2	29·847	+100	Gr. 545	Gr. + 3	In. 2·8	In. +1·0	Miles. 269	5	12	13	° 20·5	° 48·0	
May	84	+ 8	29·726	-044	534	- 4	2·8	+0·7	218	0	5	26	30·6	54·5	
June	77	+ 3	29·718	-075	533	+ 2	1·8	-0·1	268	0	6	24	35·4	53·0	
Mean.....	80	+ 4	29·763	-006	537	0	Sum 7·4	Sum +1·6	Mean 252	Sum 5	Sum 23	Sum 63	Lowest 20·5	Highest 54·5	

Note.—In reading this table it will be borne in mind that the sign (—) minus signifies below the average, and that the sign (+) plus signifies above the average.

At *Helston* apple trees were in blossom on the 9th of April; lilac on the 24th; and laburnum on the 26th; swallows were seen on the 18th.

At *Clifton*, elm, horse chestnut, and sycamore trees were partially in leaf by the end of April; apple and lilac trees were in blossom about the middle of May; swallows arrived on April 26th; and the cuckoo the next day.

At *Berkhampstead*, up to April 30th, the spring was very favourable for the blossoming of fruit and vegetation generally; apple blossom is remarkably fine and plentiful, and other fruits, &c., are promising. The frosts about the middle of April did no material injury, except to young roses and tender shrubs, but from which they are now recovering.

At *Belvoir Castle*, wet and dull weather in June, caused considerable delay in preparing the land for turnips. Wheat appeared in ear very irregularly, commencing early in the month; the development of the ears was incomplete in many fields at the end of the month. The flowering was equally unsatisfactory. Barley has been checked in its progress, and looks unpromising. Oats not much better. Beans and peas look promising. Turnips sown in some places by the middle of June.

ENGLAND.—*Meteorological Table, Quarter ended 30th June, 1862.*

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey	29·640	67·5	35·0	32·5	23·3	9·1	51·3	88
Exeter	29·631	72·5	32·1	40·4	33·2	14·1	53·2	77
Ventnor	29·636	66·0	32·0	34·0	24·3	9·0	53·9	75
Barnstaple	29·634	73·0	32·0	41·0	33·6	13·3	53·2	84
Royal Observatory	29·612	81·5	26·7	54·8	40·7	17·4	53·3	80
Royston	29·617	80·6	26·3	54·3	42·0	17·8	52·2	85
Lampeter	29·579	74·2	26·8	47·4	37·3	16·7	52·0	85
Diss (Norfolk) ...	29·597	84·5	27·2	57·3	41·6	17·2	52·5	79
Derby	29·596	76·0	26·0	50·0	39·0	17·4	53·3	67
Liverpool	29·602	71·4	31·1	40·3	26·6	10·5	52·5	79
Wakefield	29·583	78·2	24·7	53·5	40·9	17·0	52·4	76
Bradford	—	70·0	28·6	41·4	27·6	10·4	51·9	—
Stonyhurst	29·586	71·9	24·7	47·2	36·8	14·3	50·7	81
Scarborough	29·584	69·0	30·0	39·0	29·3	10·6	49·6	90
North Shields ...	29·555	72·0	26·0	46·0	32·6	13·3	48·2	89
Alnwick	29·565	73·0	25·0	48·0	37·0	17·8	49·0	85

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·5	8	4	8	10	4·4	33	5·9
Exeter	1·0	7	3	10	10	6·7	52	6·5
Ventnor	—	3	6	8	13	—	35	6·2
Barnstaple	1·3	4	5	10	12	5·0	50	11·0
Royal Observatory	—	5	4	8	13	7·8	45	7·5
Royston	—	8	2	7	12	7·2	58	6·0
Lampeter	0·7	5	4	9	10	7·2	50	10·8
Diss (Norfolk) ...	—	7	4	11	8	5·9	53	6·8
Derby	—	4	5	7	14	—	57	8·4
Liverpool	1·5	7	3	7	13	7·5	56	7·0
Wakefield	1·7	7	5	8	10	7·2	51	7·4
Bradford	1·7	7	4	8	10	7·1	60	7·2
Stonyhurst	0·6	6	5	6	12	7·9	72	14·7
Scarborough	—	6	8	7	9	—	23	4·6
North Shields ...	1·9	8	5	6	11	6·6	62	7·6
Alnwick	1·9	9	5	4	12	7·1	43	6·4

Trade of United Kingdom, 1862-61-60.—*Distribution of Exports from, United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (Ex-duty) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (excluding Gold and Silver), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Three Months.					
	1862.		1861.		1860.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:						
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	£ 1,715,	£ 329,	£ 1,601,	£ 241,	£ 1,553,	£ 245,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	3,492,	4,193,	3,320,	4,356,	3,946,	4,933,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	5,876,	3,764,	6,068,	2,856,	4,758,	2,295,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	834,	1,683,	1,043,	1,876,	810,	1,547,
Eastern Europe; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	3,436,	1,145,	3,308,	1,308,	2,666,	2,040,
Northern Africa; viz., Tripoli, Tunis, Algeria, and Morocco	93,	35,	79,	43,	29,	20,
Western Africa	283,	249,	152,	272,	330,	271,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorla Islands	—	25,	—	3,	9,	13,
Indian Seas, Siam, Java, Sumatra, Philip- pines; other Islands	243,	287,	235,	543,	310,	538,
South Sea Islands	—	—	—	—	—	3,
China, including Hong Kong	3,735,	777,	2,906,	1,853,	2,843,	1,467,
United States of America	5,319,	3,704,	14,046,	4,147,	11,088,	5,886,
Mexico and Central America	242,	108,	156,	206,	133,	155,
Foreign West Indies and Hayti	300,	553,	625,	563,	365,	342,
South America, (Northern,) New Granada, Venezuela, and Ecuador	308,	250,	212,	311,	129,	220,
„ (Pacific,) Peru, Bolivia, Chili, and Patagonia	1,160,	301,	996,	586,	1,117,	571,
„ (Atlantic) Brazil, Uruguay, and Buenos Ayres	852,	1,290,	653,	1,676,	632,	1,531,
Whale Fisheries; Grnld., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	6,	5,	—	3,	—	—
Total.—Foreign Countries	27,894,	18,698,	35,400,	20,843,	30,718,	22,077,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	3,103,	3,830,	2,267,	3,204,	2,350,	4,158,
Stral. Cols.—New South Wales and Victoria	378,	1,621,	286,	1,466,	635,	1,921,
„ „ So. Aus., W. Aus., Tasm., and N. Zea.	77,	421,	108,	375,	94,	391,
British North America	923,	268,	593,	329,	388,	512,
W. Indies with Btsh. Guiana & Honduras	954,	712,	793,	597,	817,	563,
Re and Natal	204,	487,	204,	465,	358,	467,
W. Co. of Af., Ascension and St. Helena	21,	94,	17,	112,	12,	97,
Britius	540,	138,	1,012,	129,	384,	130,
Canal Islands	142,	155,	140,	149,	147,	166,
Total.—British Possessions	6,342,	7,726,	5,420,	6,826,	5,185,	8,405,
General Total	£ 34,236,	£ 26,424,	£ 40,820,	£ 27,669,	£ 35,903,	£ 30,482,

IMPORTS. — (United Kingdom.) — First Five Months (*January — May*)
1862-61-60-59-58.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandize Imported into the United Kingdom.*

(First Five Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.		1862.	1861.	1860.	1859.	1858.
		£	£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool	5,702,	18,909,	18,752,	12,044,	13,173,
	Wool (Sheep's)..	3,268,	2,849,	3,308,	3,063,	2,479,
	Silk	6,162,	4,184,	4,137,	4,568,	2,279,
	Flax	1,050,	641,	769,	881,	445,
	Hemp	524,	358,	398,	567,	282,
	Indigo	734,	425,	676,	707,	490,
		17,440,	27,366,	28,040,	21,830,	19,148,
,, ,, <i>Various.</i>	Hides	814,	638,	1,218,	747,	540,
	Oils	1,128,	976,	1,040,	939,	979,
	Metals	1,490,	1,055,	1,304,	1,151,	1,119,
	Tallow	487,	569,	527,	330,	466,
	Timber.....	1,439,	1,413,	1,053,	1,096,	638,
		5,358,	4,651,	5,147,	4,263,	3,742,
,, ,, <i>Agricultl.</i>	Guano	315,	879,	626,	339,	1,930,
	Seeds	776,	968,	947,	1,011,	560,
		1,091,	1,847,	1,573,	1,350,	2,490,
TROPICAL, & C., PRODUCE.	Tea	4,471,	3,435,	3,811,	2,235,	1,905,
	Coffee	926,	669,	793,	419,	524,
	Sugar & Molasses	4,756,	4,766,	4,277,	3,900,	4,108,
	Tobacco	370,	465,	312,	277,	407,
	Rice	500,	523,	244,	147,	595,
	Fruits	127,	312,	251,	140,	140,
	Wine	1,494,	1,816,	1,783,	841,	729,
	Spirits	770,	649,	964,	709,	389,
		13,414,	12,635,	12,435,	8,668,	8,797,
FOOD	Grain and Meal..	12,836,	15,981,	6,402,	6,752,	7,879,
	Provisions	3,208,	2,673,	2,131,	1,155,	1,330,
		16,044,	18,654,	8,533,	7,907,	9,209,
Remainder of Enumerated Articles		1,314,	1,307,	1,369,	1,138,	1,042,
TOTAL ENUMERATED IMPORTS....		54,661,	66,460,	57,097,	45,156,	44,428,
Add for UNENUMERATED IMPORTS (say)		13,665,	16,615,	14,274,	11,289,	11,107,
TOTAL IMPORTS		68,326,	83,075,	71,371,	56,445,	55,535,

EXPORTS. — (United Kingdom.) — First Six Months (*January — June*),
1862-61-60-59-58.—*Declared Real Value, at Port of Shipment, of Articles of*
BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.

(First Six Months) (Unit 000's omitted.) BRITISH PRODUCE, &C., EXPORTED.		1862.	1861.	1860.	1859.	1858.
		£	£	£	£	£
MANFRS.— <i>Textile.</i>	Cotton Manufactures..	15,431,	18,894,	18,580,	18,942,	15,385,
	„ Yarn	3,295,	4,458,	4,660,	4,370,	4,478,
	Woollen Manufactures	5,600,	4,961,	5,501,	5,861,	4,148,
	„ Yarn	1,573,	1,640,	1,739,	1,133,	1,132,
	Silk Manufactures ...	1,001,	1,024,	950,	1,022,	768,
	„ Yarn	161,	134,	117,	97,	80,
	Linen Manufactures...	2,255,	2,039,	2,001,	2,257,	1,922,
	„ Yarn	840,	773,	913,	787,	761,
		30,156,	33,923,	34,461,	34,469,	28,674,
„ <i>Sewed.</i>	Apparel	1,033,	951,	965,	1,013,	851,
	Haberd. and Millnry.	1,592,	1,689,	1,856,	2,158,	1,557,
METALS		2,625,	2,640,	2,821,	3,171,	2,408,
	Hardware	1,475,	1,640,	1,657,	1,840,	1,502,
	Machinery	1,821,	1,905,	1,592,	1,487,	1,794,
	Iron	5,071,	5,256,	5,607,	6,331,	5,393,
	Copper and Brass	1,293,	1,112,	1,474,	1,197,	1,327,
	Lead and Tin	1,347,	910,	1,287,	1,355,	1,040,
	Coals and Culm	1,720,	1,727,	1,544,	1,600,	1,522,
Ceramic Manufcts.		12,727,	12,550,	13,161,	13,810,	12,578,
Indigenous Mnfrs.	Earthenware and Glass	825,	885,	979,	915,	830,
Indigenous Mnfrs.	Beer and Ale	814,	830,	1,252,	1,295,	1,093,
	Butter	150,	252,	264,	319,	221,
	Cheese	58,	62,	55,	58,	36,
	Candles	112,	135,	120,	75,	70,
	Salt	152,	209,	170,	116,	143,
	Spirits	150,	178,	145,	114,	97,
	Soda	411,	269,	487,	517,	347,
		1,847,	1,935,	2,493,	2,494,	2,007,
Various Manufcts.						
	Books	189,	203,	221,	215,	183,
	Furniture	107,	96,	103,	106,	130,
	Leather Manufactures	1,269,	945,	1,032,	898,	932,
	Soap	110,	116,	124,	92,	98,
	Plate and Watches ...	214,	204,	241,	235,	219,
Stationery		127,	299,	373,	393,	360,
		2,016,	1,863,	2,094,	1,939,	1,922,
Remainder of Enumerated Articles						
		3,531,	1,890,	1,622,	1,546,	1,308,
Unenumerated Articles		3,588,	4,457,	4,389,	4,659,	3,741,
TOTAL EXPORTS		57,315,	60,143,	62,020,	63,003,	53,468,

SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Six Months (*January—June*), 1862-61-60-59.—*Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Six Months.) ENTERED:—	1862.			1861.		1860.		1859.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage. (000's omitted.)	Vessels.	Tonnage (000's omitted.)
<i>Vessels belonging to—</i>	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
Russia	149	47,	315	168	51,	136	42,	129	38,
Sweden	367	63,	172	473	80,	379	60,	333	56,
Norway	1,125	212,	188	1,066	200,	874	176,	892	193,
Denmark	1,053	103,	98	1,229	118,	1,341	127,	1,111	108,
Prussia and Ger. Sts.	1,459	366,	258	1,741	382,	1,527	318,	1,417	314,
Holland and Belgium	796	107,	134	809	107,	771	106,	760	107,
France	838	70,	83	1,002	79,	946	81,	1,466	120,
Spain and Portugal	184	55,	299	247	56,	188	50,	169	41,
Italy & other Eupn. Sts.	300	91,	303	397	112,	287	88,	262	83,
United States	561	480,	855	937	834,	692	689,	506	514,
All other States	8	3,	375	6	2,	10	3,	7	2,
United Kingdm. & } Depds.....	6,840	1,597,	233	8,075	2,021,	7,151	1,740,	7,052	1,576,
	9,098	2,720,	300	9,087	2,714,	8,526	2,482,	8,505	2,287,
<i>Totals Entered</i>	15,938	4,317,	270	17,162	4,735,	15,677	4,222,	15,557	3,863,
 CLEARED:—									
Russia	170	55,	323	179	54,	142	46,	155	48,
Sweden	372	70,	188	477	87,	425	75,	361	68,
Norway	914	171,	187	943	169,	762	152,	886	185,
Denmark	1,273	124,	97	1,471	145,	1,464	143,	1,248	125,
Prussia and Ger. Sts.	2,194	437,	200	2,255	422,	1,924	378,	2,070	408,
Holland and Belgium	1,082	164,	151	971	136,	908	151,	984	153,
France	2,458	243,	98	2,702	259,	1,764	191,	1,752	191,
Spain and Portugal	187	59,	316	202	52,	160	45,	167	39,
Italy & other Eupn. Sts.	306	94,	307	519	148,	360	113,	388	119,
United States	518	447,	880	794	722,	711	675,	490	478,
All other States	17	8,	470	12	5,	9	3,	11	4,
United Kingdm. & } Depds.....	9,491	1,872,	197	10,525	2,199,	8,629	1,972,	8,512	1,818,
	13,261	3,612,	272	12,358	3,238,	11,652	3,147,	12,110	3,142,
<i>Totals Cleared</i>	22,752	5,484,	241	22,883	5,437,	20,281	5,119,	20,622	4,960,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — Computed Real Value for the First Six Months, (January—June), 1862-61-60.

(000's at unit end omitted.)

(First Six Months.)	1862.		1861.		1860.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—	£	£	£	£	£	£
Australia	3,295,	—	3,092,	—	3,286,	—
So. Amca. and W. } Indies	917,	3,016,	617,	2,780,	598,	1,839,
United States and } Cal.	3,214,	45,	27,	26,	1,653,	551,
	7,426,	3,061,	3,736,	2,806,	5,537,	2,390,
France	83,	673,	1,697,	346,	53,	1,762,
Hanse Towns, Holl. } & Belg.	386,	1,459,	401,	378,	10,	860,
Prtgl., Spain, and } Gbrltr.	12,	66,	6,	94,	11,	142,
Mlta., Trky., and } Egypt	3,	6,	12,	3,	14,	7,
China	—	1,	—	—	—	—
West Coast of Africa	57,	3,	40,	1,	55,	2,
All other Countries....	126,	13,	82,	25,	125,	7,
Totals Imported	8,093,	5,282,	5,974,	3,653,	5,805,	5,170,
Exported to:—						
France	2,711,	394,	916,	556,	3,447,	200,
Hanse Towns, Holl. } & Belg.	122,	247,	9,	454,	66,	176,
Prtgl., Spain, and } Gbrltr.	1,062,	7,	482,	3,	276,	1,
	3,895,	648,	1,407,	1,013,	3,789,	377,
Ind. and China (viâ } Egypt)	629,	4,364,	451,	4,594,	760,	5,385,
Danish West Indies....	65,	5,	11,	29,	5,	10,
United States	29,	—	5,930,	18,	1,	2,
South Africa	—	—	75,	—	2,	—
Mauritius.....	—	—	—	2,	—	—
Brazil	225,	10,	12,	83,	273,	74,
All other Countries....	2,458,	591,	394,	62,	95,	28,
Totals Exported	7,301,	5,618,	8,280,	5,801,	4,925,	5,876,
Excess of Imports	792,	—	—	—	880,	—
„ Exports	—	336,	2,306,	2,148,	—	706,

REVENUE.—(UNITED KINGDOM.)—30TH JUNE, 1862-61-60-59.

Net Produce in YEARS and QUARTERS ended 30TH JUNE, 1862-61-60-59.

[Unit 000's omitted.]

QUARTERS, ended 30th June.	1862.	1861.	1862.		Corresponding Quarters.	
			Less.	More.	1860.	1859.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs	5,791,	5,820,	30,	—	5,733,	6,108,
Excise	4,886,	5,171,	285,	—	5,114,	4,945,
Stamps	2,253,	2,186,	—	67,	2,068,	1,960,
Taxes	1,357,	1,363,	6,	—	1,354,	1,349,
Post Office	850,	825,	—	25,	825,	785,
	15,137,	15,365,	321,	92,	15,094,	15,147,
Property Tax	2,772,	2,588,	—	184,	1,089,	782,
	17,909,	17,953,	321,	276,	16,183,	15,929,
Crown Lands	68,	67,	—	1,	66,	65,
Miscellaneous	433,	378,	—	55,	570,	498,
<i>Totals</i>	18,410,	18,398,	321,	332,	16,819,	16,492,
			NET INCR. £11,310			

YEARS, ended 30th June.	1862.	1861.	1862.		Corresponding Years.	
			Less.	More.	1860.	1859.
	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
Customs	23,644,	23,393,	—	250,	24,085,	24,347,
Excise	18,047,	19,492,	1,445,	—	20,530,	18,221,
Stamps.....	8,658,	8,466,	—	192,	8,151,	7,882,
Taxes	3,154,	3,136,	—	18,	3,237,	3,185,
Post Office	3,535,	3,400,	—	135,	3,350,	3,220,
	57,038,	57,887,	1,445,	595,	59,353,	56,855,
Property Tax	10,549,	12,423,	1,874,	—	9,903,	6,266,
	67,587,	70,310,	3,319,	595,	69,256,	63,121,
Crown Lands	296,	292,	—	4,	286,	280,
Miscellaneous	1,803,	1,260,	—	542,	1,874,	2,288,
<i>Totals</i>	69,686,	71,862,	3,319,	1,141,	71,416,	65,689,
			NET DECR. £2,177,305			

REVENUE.—(UNITED KINGDOM).—QUARTER ENDED 30TH JUNE, 1862 :—
APPLICATION.

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 30th June, 1862 ; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 31st March, 1862, viz.:—	£
Great Britain	—
Ireland	£485,174
	<u>485,174</u>
Income received in the Quarter ended 30th June, 1862, as shown on preceding page	18,409,904
Amount raised per Act 23 and 24 Victoria, cap. 109, on account of Fortifications, &c.	200,000
Amount raised by the issue of Exchequer Bonds, per Act 25 Victoria, cap. 13.	1,000,000
Amount received in the Quarter ended 30th June, 1862, in repayment of Advances for Public Works, &c.	417,508
	<u>£20,512,586</u>
Balance, being the deficiency on 30th June, 1862, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 30th September, 1862, and for which Exchequer Bills (Deficiency) will be issued in that Quarter.....	1,543,323
	<u>£22,060,909</u>

Paid:—

Amount applied out of the Income for the Quarter ended 30th June, 1862, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 31st March, 1862	£
	1,936,281
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 30th June, 1862	11,725,253
Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th June, 1862, viz.:—	
Interest of the Permanent Debt	£6,306,777
Terminable Debt	338,348
Principal of Exchequer Bills	16,200
Interest of „	90,945
„ Exchequer Deficiency Bills	241
The Civil List	102,096
Other Charges on Consolidated Fund	624,672
Advances for Public Works, &c.	173,913
	<u>7,653,192</u>
<i>Surplus Balance</i> in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th June, 1862, viz.:	746,183
	<u>£22,060,909</u>

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Second Quarter of 1862.*

[This Table is communicated by H. F. JADIS, Esq., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1862.			Weekly Average. (Per Impl. Quarter.)					
			Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
			s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
April	5	.....	58 5	36 —	21 9	36 5	38 2	38 7
"	12	.....	57 6	36 4	21 5	38 5	38 11	41 1
"	19	.....	57 9	36 8	21 1	34 6	38 6	40 5
"	26	.....	58 2	37 —	21 8	38 1	38 11	38 —
Average for April			57 11	36 6	21 5	36 10	38 7	39 6
May	3	.....	58 10	37 2	22 5	37 8	39 10	40 11
"	10	.....	58 8	37 3	22 4	35 11	40 3	40 5
"	17	.....	57 11	37 —	23 5	34 5	39 10	39 7
"	24	.....	56 9	35 11	22 11	43 2	40 5	43 1
"	31	.....	55 2	35 7	23 11	41 11	40 6	39 9
Average for May			57 5	36 7	23 —	38 7	40 2	40 9
June	7	.....	54 7	34 3	23 4	43 6	40 9	37 6
"	14	.....	53 9	33 3	24 4	33 9	40 1	37 9
"	21	.....	54 1	32 10	23 5	36 1	39 11	37 2
"	28	.....	55 4	32 9	22 11	36 8	40 2	39 1
Average for June			54 5	33 3	23 6	37 6	40 2	38 —
Average for the Quarter ..			56 8	35 6	22 8	37 8	39 8	39 6

RAILWAYS.—PRICES, April—June,—and TRAFFIC, Jan.—June, 1862.

Total Capital Ex- pended Mlns.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic first 26 Weeks. (unit 000's omitted.)		Traffic pr. Mile pr. Wk. 26 Weeks.		Dividends per Cent. for Half Years.		
		2nd June	1st May	1st April	'62.	'61.	'62.	'61.	'62.	'61.	31 Dec. '61.	30 Jun. '61.	31 Dec '60.
£					No.	No.	£	£	£	£	s. d.	s. d.	s. d.
44,4	Lond. & N. Westn.	93 $\frac{1}{4}$	95 $\frac{1}{2}$	92 $\frac{3}{4}$	1,066	1,015	2,108,	2,132,	76	81	47 6	37 6	52 6
35,2	Great Western	71 $\frac{5}{8}$	74 $\frac{1}{8}$	72 $\frac{1}{2}$	964	943	1,387,	1,367,	55	55	30 —	22 6	35 —
13,4	Great Northern	113 $\frac{3}{4}$	116	115 $\frac{1}{2}$	330	330	646,	661,	75	77	77 6	37 6	63 9
17,9	Eastern Counties.	53 $\frac{3}{4}$	58 $\frac{1}{2}$	57	499	499	643,	638,	49	49	30 —	16 3	23 9
10,2	Brighton	122	122 $\frac{3}{4}$	121 $\frac{1}{2}$	241	224	428,	414,	68	72	70 —	50 —	70 —
14,1	South-Eastern	83 $\frac{3}{4}$	85	82 $\frac{1}{4}$	306	306	523,	526,	66	66	50 —	41 8	60 —
12,6	South-Western	99 $\frac{1}{2}$	100 $\frac{1}{4}$	100	400	400	—	473,	—	42	55 —	40 —	52 6
147,8		91	93	91 $\frac{1}{2}$	3,806	3,717	5,735,	6,211,	65	65	51 —	35 1	51 1
21,7	Midland.....	127 $\frac{1}{4}$	128 $\frac{3}{4}$	127 $\frac{3}{4}$	622	614	960,	987,	59	61	70 —	62 6	70 —
19,3	Lancsh. and York.	107 $\frac{3}{4}$	107 $\frac{5}{8}$	107	395	395	811,	946,	79	92	50 —	45 —	60 —
11,7	Sheffield and Man.	40 $\frac{1}{2}$	42 $\frac{1}{2}$	43 $\frac{1}{8}$	231	231	350,	390,	58	65	12 6	7 6	15 —
23,8	North-Eastern	97	85	97 $\frac{1}{4}$	800	789	901,	978,	43	47	50 —	52 6	57 6
4,5	South Wales	68	68	67 $\frac{1}{2}$	171	171	—	179,	—	40	30 —	27 6	30 —
81,0		88	86 $\frac{3}{8}$	88 $\frac{1}{2}$	2,219	2,200	3,022,	3,480,	57	60	42 —	39 —	46 6
9,1	Caledonian	108	109 $\frac{1}{2}$	111 $\frac{1}{4}$	121	125	392,	393,	124	121	55 —	50 —	55 —
5,2	Gt. S. & Wn. Irld.	105 $\frac{3}{4}$	106	106	329	329	206,	203,	24	24	50 —	50 —	50 —
243,1	Gen. aver.	92 $\frac{1}{8}$	92 $\frac{3}{4}$	92 $\frac{7}{8}$	6,475	6,371	9,355,	10,287,	61	62	48 6	38 7	49 8

Consols.—Money Prices 2nd June, 92 $\frac{1}{4}$ x.d.,—1st May, 93 $\frac{7}{8}$,—1st April, 93 $\frac{5}{8}$ to $\frac{3}{4}$.

Exchequer Bills. „ 12s. pm. „ 19s. pm. „ 19s. pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the SECOND QUARTER (April—June) of 1862.

1					6	
2					7	
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.	DATES.	Assets.			Notes in	Minimum Rates
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.	Hands of Public. (Col. 1 minus col. 16.)	of Discount at Bank of England.
Mlms. £	1862.	Mlms. £	Mlms. £	Mlms. £	Mlms. £	1862. Per ann.
30,61	April 2 ...	11,02	3,63	15,96	20,82	9 Jan. 2½ p. ct.
30,67	„ 9 ...	11,02	3,63	16,02	21,15	
30,55	„ 16 ...	11,02	3,63	15,90	21,42	
30,95	„ 23 ...	11,02	3,63	16,30	21,02	
30,89	„ 30 ...	11,02	3,63	16,24	21,26	
31,03	May 7 ...	11,02	3,63	16,40	21,03	
30,70	„ 14 ...	11,02	3,63	16,05	20,90	
30,09	„ 21 ...	11,02	3,63	15,45	20,83	
29,97	„ 28 ...	11,02	3,63	15,32	20,61	
29,30	June 4 ...	11,02	3,63	14,65	20,86	
28,88	„ 11 ...	11,02	3,63	14,23	20,69	
29,06	„ 18 ...	11,02	3,63	14,41	20,48	
29,67	„ 25 ...	11,02	3,63	15,02	20,59	

BANKING DEPARTMENT.

8					13	14				18
9					10		11			
Liabilities.					DATES.		Assets.			
Capital and Rest.		Deposits.		Seven Day and other Bills.	(Wdnsdys.)	Securities.		Reserve.		Totals of Liabilities and Assets.
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.	
Mlms. £	Mlms. £	Mlms. £	Mlms. £	Mlms. £	1862.	Mlms. £	Mlms. £	Mlms. £	Mlms. £	Mlms. £
14,55	3,67	8,46	13,62	,68	April 2	11,39	18,91	9,79	,89	40,97
14,55	3,08	5,62	16,34	,67	„ 9	11,16	18,72	9,52	,86	40,27
14,55	3,08	5,22	15,71	,63	„ 16	11,21	18,02	9,13	,85	39,20
14,55	3,09	5,53	15,91	,63	„ 23	11,21	17,71	9,93	,87	39,72
14,55	3,08	6,87	14,36	,69	„ 30	11,21	17,86	9,63	,85	39,55
14,55	3,10	7,50	13,87	,70	May 7	11,23	17,63	10,00	,86	39,73
14,55	3,12	6,30	14,95	,73	„ 14	10,33	18,65	9,80	,87	39,66
14,55	3,13	6,56	14,55	,66	„ 21	10,33	19,00	9,26	,89	39,45
14,55	3,11	6,94	14,68	,66	„ 28	10,33	19,39	9,36	,86	39,95
14,55	3,11	7,52	13,19	,66	June 4	10,33	19,41	8,44	,84	39,03
14,55	3,12	8,82	13,16	,64	„ 11	11,03	20,26	8,19	,80	40,29
14,55	3,13	9,32	13,08	,60	„ 18	11,03	20,21	8,58	,86	40,68
14,55	3,13	9,63	13,40	,59	„ 25	11,08	20,24	9,08	,89	41,30

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the SECOND QUARTER (April—June) of 1862; and in SCOTLAND and IRELAND, at the Four Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 4'35.)	Joint Stock Banks. (Fixed Issues, 3'30.)	TOTAL. (Fixed Issues, 7'65.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2'75.)	£5 and upwards	Under £5.	TOTAL. (Fixed Issues, 6'35.)
1862.	Mlns. £	Mlns. £	Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
April 5	3,32	3,03	6,35	April 5	1,41	2,40	3,81	3,02	2,77	5,79
„ 12	3,39	3,10	6,49							
„ 19	3,40	3,09	6,49							
„ 26	3,37	3,05	6,42							
May 3	3,34	3,03	6,37	May 3	1,52	2,44	3,96	3,15	2,71	5,86
„ 10	3,36	3,03	6,39							
„ 17	3,33	3,02	6,35							
„ 24	3,25	2,94	6,19							
„ 31	3,19	2,87	6,06	„ 31	1,86	2,75	4,61	3,14	2,60	5,74
June 7	3,16	2,86	6,02							
„ 14	3,15	2,85	6,00							
„ 21	3,13	2,84	5,97							
„ 28	3,12	2,81	5,93	June 28	1,63	2,63	4,26	2,88	2,51	5,39

FOREIGN EXCHANGES.—*Quotations as under, LONDON on Paris, Hamburg & Calcutta; —and New York, Calcutta, Hong Kong & Sydney, on LONDON—with collateral cols.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Syd- ney.	Stan- dard Silver in bars in Lon- don.
	London on Paris.	Bullion as arbitrated.		Prem. or Dis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agnst. Engd.	For Engd.			Agnst. Engd.	For Engd.						
	3 m. d.				3 m. d.			60 d. s.	60 d. s.	6 m. s.	6 m. s.	30 d. s.	pr. oz.
1862.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
Apl. 12 ..	25·50	—	0·4	par	13·8½	—	0·5	112	—	24¼	53½	1½ p.	61¼
„ 26 ..	·50	—	„	„	·8½	—	0·2	113	—	„ ⅝	„	„	„
May 10 ..	·50	—	0·2	1 p.	·8¾	0·1	—	„	—	„	„	„	„ ⅛
„ 31 ..	·47	—	par	„	·8¾	—	par	114	—	„	„	„	„ ⅝
June 14 ..	·50	—	0·1	„	·9	—	0·1	115	23¾	24¼	„	„	„
„ 28 ..	·52	—	0·3	„	·4¼	—	par	116	„	„	„	„	61

JOURNAL OF THE STATISTICAL SOCIETY,

DECEMBER, 1862.

On the EARNINGS of AGRICULTURAL LABOURERS in SCOTLAND and IRELAND. By FREDERICK PURDY, Esq., Principal of the Statistical Department, Poor Law Board, London.

[Read before the Statistical Society, 15th April, 1862.]

CONTENTS:

	PAGE		PAGE
I.—Introductory	425	VI.—Cost of Food, Firing, Clothing, and Rent in Arbroath, in 1812-19-26 and 1833	471
SCOTLAND.		VII.—Prices of Food, in Seven Counties, 1835-42	472
II.—Classes of Agricultural Labourers...	426	VIII.—Shop Prices of Food in Three Counties, 1860.....	473
III.—Rate of Wages in 1860	429	IX.—Shop Prices of Labourers' Clothing in Three Counties, 1860.....	475
IV.—Demand and Supply of Agricultural Labour	435	X.—Families of Crofters and Cottars, and Rents paid in 1851	478
V.—Rise in the Rate of Wages	437	XI.—Rents under 5% of Crofters and Cottars, 1851	478
VI.—Cost of the Labourer's Food, Clothing, and Rent	441	XII.—Persons aged 20 years and upwards, occupied in Agriculture in Scotland in 1851.....	479
IRELAND.			
VII.—Classes of Agricultural Labourers...	445		
VIII.—Rate of Wages in 1860	446		
IX.—Supply of Labour; Rise in Wages..	451		
X.—Labourer's Expenditure for Food, Clothing, and Rent	456		
THE UNITED KINGDOM.			
XI.—General Recapitulation	465		
APPENDIX.			
SCOTLAND.			
I.—Wages in the Christmas Half-year, 1860.....	467	XIII.—Wages in the Christmas Half-year, 1860	480
II.—Wages in separate Counties	468	XIV.—Wages in separate Counties.....	481
III.—Comparative Tables of Wages, 1835-44 and 1860.....	469	XV.—Comparative Table of Wages, 1843-4 and 1860	482
IV.—Comparative Tables of Yearly Wages, 1835-43 and 1860	470	XVI.—Comparative Wages of Agricultural Labourers and of Mechanics, 1854-5	483
V.—Yearly Allowances to Farm Labourers in 1860.....	471	XVII.—Weekly Cost of Labourers' Diet, 1859	484
		XVIII.—Cost of the Clothing of Agricultural Labourers	485
		XIX.—Cost of the Clothing of Workhouse Inmates	488
		XX.—Rents paid by the Peasantry in each County	490

I.—Introductory.

THE paper, on the "*Earnings of Agricultural Labourers in England and Wales*," which I had the honour to read before the Society last year, concluded with these words:—

"Since the publication of the English return, the House of Commons has ordered similar information to be laid before it in respect of Ireland and Scotland, in the same form and for the same period, as that we have just been discussing. If the facts are as fully

“given as in the original return, we shall then be in a position to institute some interesting comparisons with other parts of the United Kingdom.”

The returns alluded to then, have since been issued. They contain the needful particulars for the purpose of the comparisons indicated. The present attempt is an endeavour to fulfil by their aid, the design held in the mind of the writer, though unexpressed at the time. The Scotch return, which bears the name of Sir Andrew Agnew as its mover, is presented to the public in a satisfactory manner; with this exception however, that four counties are entirely omitted from the paper. The Irish return, obtained upon the motion of Lord Dunkellin, is an excellent one in every respect. The particulars given are abundant; and each county is duly represented. Irish official statistics bid fair to hold their own against any which are prepared in Great Britain.

SCOTLAND.

II.—*Classes of Agricultural Labourers.*

The general description of the Scotch agricultural labourer falls under six classes. 1. the “crofter;” 2. the “cottar;” 3. the “farm-servant;” 4. the “day-labourer;” 5. the “hind;” and lastly, but by no means least, 6. the “shepherd.” There are material differences in the fiscal, and in several respects, in the social condition of each class. The two first classes constitute the labouring portion of the community in the “Highlands and Islands.” They are thus described by Sir John McNeill:—

“The *Crofters*, including under that designation all persons holding land directly from the proprietors at rents not exceeding 20*l.* a-year. In every district the great majority of the population consists of crofters. Besides the crofters, there is a class ‘called *cottars*, who are numerous in some parishes and districts, and ‘who either do not hold land at all, or hold only from year to year ‘as sub-tenants.’ ‘The crofters and cottars,’” says Sir John McNeill, “constitute the great mass of the population.”*

The average yield of these crofts is generally stated to be six months food for a family of persons, with seed for the next year; but nothing beyond that, to meet the rent, buy clothes, or food for the remainder of the year.

Sir John McNeill, who visited the western district in 1851, has left on record so pleasing a description of the conduct, under great distress, of the labouring people in that part of the country, that I cannot refrain from transcribing the passage here:—

* Sir John McNeill “On the State of the Highlands and the Islands of Scotland,” in 1851. Report presented to Parliament by Command.

“It is,” says Sir John, “due to the working classes, in the parishes I have visited, to state that their deportment was uniformly civil and obliging, even in circumstances that might have produced feelings of discontent.” * * *

Expectations having been fostered in the Highlands, that the Government would afford to the poor, the means of employment and subsistence, it became Sir John’s duty to undeceive the people.

“Yet,” he adds, “I did not anywhere observe a tone, a look, or a gesture that indicated resentment, or even irritation. They frequently argued freely, sometimes with considerable ability and subtlety, never with rudeness, and often with a politeness and delicacy of deportment that would have been graceful in any society, and such as perhaps no men of their class, in any other country I am acquainted with, could have maintained in similar circumstances.”—(Sir John McNeill. “Highlands and Islands, Scotland,” p. 5.)

The “farm-servant,” and that name is borne both by men and women, works for wages, paid partly in money, and partly in board and lodging; the latter often afforded to him in the farm-house; but perhaps more frequently, in large barrack like wooden buildings on the farm called “boothies.” Sometimes the “farm-servant” lives in a separate cottage provided by the farmer, who also supplies him with food for himself, and for his family, if he be married. The labourer thus remunerated is called a “benefit-man,” and the payment in lodging and food his “benefit.”* In the statistical survey of Scotland, a farm-servant’s yearly money wages without “benefit,” is stated to have been in 1843-4, 25*l.*; and with “benefit” 11*l.* 10*s.* The value of the “benefit” was, therefore, considered to have been 13*l.* 10*s.* In Dumfries the ploughman’s wages being then 20*l.*; the “benefit” was valued at 8*l.* a-year.† With farm-servants, a preference in wages is had by the married man over the bachelor; because, the former has his wife, or some of his children to assist in the farm, at harvest or at other times of pressure, and for this advantage to his employer, he derives a larger reward. The distinction is brought out clearly in the return from Fifeshire. It is here only exhibited with regard to the ploughman; but it obtains with respect to other farm-servants.

<i>Married Ploughmen are paid:</i>				<i>Single Ploughmen:</i>			
1860.		Per Annum.		1860.		Per Annum.	
		£	s. d.			£	s. d.
Money wages		17	10 —	Money wages		19	10 —
6½ bolls oatmeal, at 140 lbs....		6	10 —	6½ bolls meal, at 140 lbs. }		6	10 —
Half gallon milk per day.....		4	12 —	per boll			
36 cwt. potatoes, at 3 <i>s.</i>		5	8 —	Half gallon milk per day.....		4	12 —
House, garden, and cartage }		2	15 —	Potatoes		1	— —
of coals				Lodging, fuel, &c.		2	12 —
Beer and bread at hay, }				Bread and beer at harvest		—	18 7
corn, and potatoe har- }		—	18 7				
vest, at 7½ <i>d.</i>							
		37	13 7			35	2 7

* “New Statistical Survey,” vol. iv, pp. 31, 337, 383.

† Ibid., vol. iv, p. 252. Cummertrees parish.

The food allowances wherever returned, are set out in Table (V) in the Appendix. They are applicable to every sort of farm-servant.

Farm-servants, or farm-labourers as they are sometimes designated, are usually, though not always, hired by the half-year.

The "day-labourer" is paid wholly in money, at so much *per diem*; though he frequently obtains, in addition to increased wages at harvest, food from the farmer's discrete bounty, during that season of anxious contingencies.

The "hind" system prevails in Haddingtonshire and Berwickshire, and in some other parts of the south of Scotland. It is observed in the note to Sir A. Agnew's return, with respect to Haddingtonshire, "That two-thirds of the farm-servants in this county are paid principally by *grain*. They have also generally the keep of a cow, or allowance therefor, and free house. Their wages vary very much, and the value depends on the state of the markets."

This plan of hiring appears to be, in all essential particulars, similar to that described in the previous paper, as existing in Northumberland, and some other parts of the north of England.* In 1860 the hind's emoluments were returned as worth 15s. per week.

Under the "*rate of wages*," the "hind's boll" as it is called in the statistical survey of the parish of Stenton, Haddingtonshire, was valued in the following manner; the figures relate to 1855:—

Hind's Boll.

	£	s.
Oats 12 old bolls	10	10
Barley 3 „	3	14
Peas 2 „	1	7
Cow kept	6	—
Potatoes planted, 1,200 yards	2	12
In lieu of keeping hens	—	15
	<hr/>	<hr/>
	24	18

In the present day, it would appear rather trite to enlarge upon the intelligence, trustworthiness, and power of endurance of the Scotch shepherd. All accounts consulted for the purpose of obtaining information for the present paper, concurred in giving him a very high character. By his sagacity, industry, and frugality, he often raises himself into the rank of the smaller farmers. His wages are usually paid by assigning to him a given portion of the flock over which he has charge. He enters into a sort of pastoral partnership "of limited liability" with the farmer. When he leaves the service of his employer, the latter purchases the shepherd's stock, which is delivered over to his successor. In the "Statistical Account of Scotland," it is stated that, "Shepherds instead of money wages are generally allowed a house, 6½ bolls of meal, the grazing

* *Statistical Journal*, vol. xxiv, p. 337, *et seq.*

“ of two cows, and from forty to sixty sheep per annum.” He appears, however, to receive, in some places, money wages and food. The tract of country over which the shepherd has to exercise his care, is very extensive ; as more than the half of Scotland is covered with “ sheep-walks.”

The clergymen who, for the statistical survey, reported in respect of the parishes with which they were clerically associated, bore frequent testimony to the good character and decent behaviour of the Scotch peasantry; especially in the localities where those qualities were set off by the opposite characteristics of a colliery population. The following passage is from the survey of Kelton in Kirkcudbrightshire, and may be regarded as a fair example of the character, generally awarded to the agricultural labourers, in the Scotch lowlands :—

“ The peasantry are frugal, and cleanly in their habits; enjoy, in a reasonable degree, the comforts and advantages of society, and seem cheerful and contented with their condition and circumstances. Their ordinary food consists of oatmeal, made into cakes, and porridge, with milk for breakfast and supper, and a dinner of barley broth, with beef or mutton and potatoes.”

III.—Rate of Wages in 1860.

The summary of wages in the text, as well as the tables in the Appendix, are conformable to the county arrangement adopted in the census of 1861; with a condensation into three groups, which the numerous divisions of that work rendered expedient. The *first group* is conterminous with the northern, the north-western, and north-eastern; the *second group*, with the east and west midland; and the *third group*, with the south-western, south-eastern, and southern divisions of the Scotch registration and census tables.

The agricultural labourers working for wages on the 31st March, 1851, were 201, 427. They were classed in the following manner :—

Class.	Under 20 Years.	20 Years and Upwards.	Total.
<i>Males :—</i>			
Out-door labourers.....	14,027	80,872	94,899
Shepherds	725	5,829	6,554
Farm servants (in-door).....	24,313	21,033	45,346
Total Males.....	—	—	146,799
<i>Females :—</i>			
Out-door labourers.....	5,325	20,826	26,151
In-door farm servants (not } domestic servants)	12,745	15,732	28,477
Total Females	—	—	54,628

FIRST GROUP—*Northern Counties.*

There are eleven counties included in this group, which is continuous with the northern, north-western, and north-eastern divisions of the census of 1861. The area is 9,821,239 *acres*; the population, according to the last enumeration, 667,065 *persons*; the increase since 1851, has been less than 2 per cent, or 11,007 *persons*; some of the counties have decreased.

The number of adults, that is, of *persons aged 20 years and upwards*, engaged in agriculture, according to the census of 1851, was 119,554, or 30·2 per cent. on the *adult* population of that year.

Returns are given in respect of nine counties in this group, namely:—Shetland, Orkney, Caithness, Sutherland, Ross and Cromarty, Inverness, Nairn, Elgin and Kincardine. Aberdeen and Banff, have the unenviable distinction of being absent from this useful parliamentary paper.

Weekly Wages.—The *men's* range from 8s. to 14s. 6d. The wages at 8s. are confined to Shetland; excluding that district, the lowest amount is 11s. The *average* of the nine counties is 12s. 2 $\frac{3}{4}$ d. The *women's* are 4s. to 6s. 6d.; *average* 5s. 1 $\frac{1}{4}$ d. The wages of the *children* (the term being limited to all those who are under 16 years of age) are 2s. 9d. to 6s.; the *average* 4s.

Harvest Wages.—In Orkney, the *men* have 12s. per week, without food; or 9s. with. *Women*, 6s. with food. In Caithness for the whole harvest, *men* have, 55s. with food; and *women*, 28s. with food. In Sutherland, *men* receive 15s.; and *women*, 9s. per week. In Cromarty, *men* receive 13s. to 15s.; or 3*l.* for harvest of five weeks. In Elgin, wages in harvest with lodging and victuals, *men* 12s. 6d.; *women* 7s. 6d.; *boy's* 6s. 4d. In Kincardine, *men* earn 19s., and *women* 13s., during five weeks, with food and beer in addition.

Allowances.—In some of the counties the labourers receive no food, or drink, in addition to the money wages. In Orkney, Sutherland, Inverness, Elgin, and Kincardine, food and lodging with firing are allowed; but the value of these additions, about 4s. to 5s. a-week, is reckoned in the money wages. In some places the labourers are either fed in the farmer's kitchen, or have a house or accommodation in the booth; the latter have 18 lbs. of oatmeal, 10 lbs. of potatoes, and generally 9d. per week for milk. Those fed in the farmer's house appear to obtain a much better diet.

Task Work.—In Shetland and Caithness, there is none. In the other counties the weekly earnings of *men* range from 12s. to 14s. 6d.; the *average* being 13s. 6d. No food is given, or other allowance made to those who are engaged on task work.

Special Services.—In Orkney, *ploughmen* are hired by the year; they are paid 12*l.* a-year in money, and receive in addition 2 quarts

of milk daily, 5 stones of oatmeal (90 lbs.) monthly, and 10 barrels of potatoes. *Dairymaids* 6*l.* per year, with maintenance the same as the men; with the exception of potatoes, of which they have but one-half the quantity. *Children* under 14, herding cattle, 1*l.* 10*s.* per half-year, with board and lodging.

SECOND GROUP—*Midland Counties.*

This group includes the nine counties which are contained in the east midland and west midland divisions of the census. The area is 5,462,339 *acres*; the population 762,999 *persons*; the increase is less than that of the first group, being only 10,408, or 1·4 per cent. Four of the counties have decreased.

The number of the *adults* engaged in agriculture in 1851, was 69,287, or 17·1 per cent. of the adult population at that time.

All the counties are returned in this group; namely, Forfar, Perth, Fife, Kinross, Clackmannan, Stirling, Dumbarton, Argyle, and Bute.

Weekly Wages.—The *men's* range from 12*s.* to 15*s.*; the *average* 13*s.* 2*d.* The *women's* range from 4*s.* 6*d.* to 7*s.* 6*d.*; average 5*s.* 7¼*d.* The *children's* vary from 3*s.* to 5*s.*; the average 4*s.* —½*d.*

Harvest Wages.—In Forfar, harvest workers, besides those belonging to the farm, are obtained from the country and neighbouring towns. The men receive for “dry time,” 25*s.* per week on the average; with bread and beer, and milk for dinner. In Perth, good scythemen from 20*s.* to 21*s.* per week, with victuals; or 5*s.* a-week extra, without food. Women and young lads, 15*s.* to 18*s.*, without food. In Fife, 15*s.* a-week for men, and 12*s.* for women; with an allowance of bread and beer; in the potato harvest, men 15*s.*, and women 9*s.*, *without* food. In Kinross, men 15*s.*, and women 8*s.* 6*d.*; both having an allowance of bread and beer for dinner. In Clackmannan, men 19*s.*, and women 12*s.*; both having also bread and beer for dinner. In Stirling, men 21*s.*, women 13*s.* 6*d.*, children 4*s.* 6*d.*; all receiving bed and board in addition. In Dumbarton, 24*s.* per week on the average, without any allowance. Women 12*s.*; men at piece work during harvest, can make 5*s.* a-day. In Argyle, men 18*s.* a-week; and in Bute, 15*s.* a-week and food, a medium wage for men.

Allowances.—Besides money wages, the labourers frequently receive food, or board and lodge in the farm-houses, or in a booth attached; the value of these additions has been estimated in the weekly wages. Food and drink, given to ploughmen and other servants, are noticed in the next paragraph.

Task Work.—In Clackmannan and Bute, there appears to have been no task work. In the other counties the weekly payments to *men* range from 13*s.* 6*d.* to 17*s.*; averaging 14*s.* 7¾*d.*

Special Services.—In Forfar, the regularly *hired male* farm servant, has 10*l.* 11*s.* 6*d.* for six months money wages; with oatmeal and milk, worth 6*l.* 13*s.* 7*d.*; this is at the rate of 13*s.* per week; besides fuel, lighting, and lodging. *Ploughmen* receive 7*s.* a-week, with 2 pecks of oatmeal and 7 pints of milk, with lodging in a bothy. The *married ploughman's* money wages 17*l.* 10*s.*, food, fuel, house, and garden, together worth 20*l.* 3*s.* 7*d.* *Single ploughman's* wages 19*l.* 10*s.*; the value of the food, &c., 15*l.* 12*s.* 7*d.* In Clackmannan, male servants hired by the year, 22*l.* in money, 3¼ tacks of oatmeal, and a house.

In Dumbartonshire, the hired servants have food and lodging; the average money wages for six months, are, for *ploughmen* 11*l.* *Spadesmen* 8*l.* 10*s.* *Boy's* 4*l.* *Women* 5*l.* *Girl's* 1*l.* 15*s.*

In Argyle, *ploughmen* 20*l.*, and *shepherds* 18*l.* a-year; if unmarried, they board and lodge with the farmer; if married, they are usually allowed a free house, with cow's grass, and 14*lbs.* of oatmeal per week. *Dairymaids* 10*l.*, with board and lodging in the farm.

THIRD GROUP—*Southern Counties.*

Thirteen counties are comprised in this group, which is counterminous with the south-western, south-eastern, and southern divisions of the census. The area is 4,763,884 *acres*; the population 1,631,187 *persons*. By far the largest increase of population has taken place in this district, which contains the metropolis, and the principal manufacturing towns of Scotland. The numbers rose in the last decade 10·2 per cent., or 150,994. Three of the most southern counties, however, exhibit decreases.

The number of *adults*, who, in 1851, were engaged in agriculture, was 96,065, or 12·1 per cent. of the *adult* population. It is the least agricultural of the three groups.

Nine of the counties, namely:—Renfrew, Ayr, Lanark, Linlithgow, Edinburgh, Haddington, Berwick, Peebles, Selkirk, Kirkcudbright, and Wigtown, are returned; but Roxborough and Dumfries are not.

Weekly Wages.—The *men's* vary from 11*s.* to 15*s.*; the average being 13*s.* 2*d.* *Women's* 5*s.* to 7*s.* 6*d.*; average 5*s.* 11½*d.* *Children's* 2*s.* to 6*s.* 6*d.*; average 4*s.* 9½*d.*

Harvest Wages.—In Renfrew, men average 21*s.* per week. In Ayr, *men* average 21*s.*, and *women* 18*s.*, in the Kyle and Cunningham districts. In Lanark, *men* 18*s.*; and *women* 12*s.*; both with food. In Edinburgh, women make double wages, with food extra; and the men have two diets a-day during harvest. In Peebles, almost all the farm-labourers are yearly servants; the men in harvest have extra victuals; and the women have 9*s.* weekly, with victuals. In Selkirk, the *men* 22*s.* 6*d.*; *women* 15*s.*; both without food; the men working ten hours and the women seven hours a-day. In Kirkcudbright, the

men 16s.; and *women* 8s.; with board and lodging. In Wigtown, "harvesters" are commonly engaged for the whole harvest; for that of 1860, the wages were 3*l.* to 3*l.* 10s., with food.

Allowances.—Where food and drink are allowed to the ordinary labourer, the value of these additions is included in the weekly money wages. In Haddington and Berwick, during harvest, porridge, bread, and beer are allowed, in addition to the money wages, as stated in the table.

Task Work.—*Men's* earnings range from 12s. to 18s. per week; the average being 15s. 3*d.*

Special Services.—In Renfrew, *ploughmen* average 21*l.* a-year; and dairymaids 5*l.* 5s.; both having board and lodging with their employers. In Ayr, *married ploughmen* 18*l.*, with 10 bolls of oatmeal, free house, and cartage of coals. *Unmarried ploughmen* 19*l.* *Dairymaids* 5*l.* *Boys* under 16, 2*l.* 10s.: the last three classes have board and lodging in addition. In Lanark, *married ploughmen* 21*l.*, with food, fuel, and rent; valued at 10*l.* 4s. *Dairymaids* 14*l.*, with very full board. Linlithgow, *married ploughmen* average 22*l.* 10s., with food, fuel, and house rent; valued at 11*l.* 6s., in addition.

ALL SCOTLAND.

From the preceding figures, we obtain the following results as totals applicable to this part of the United Kingdom:—The area is 20,047,462 *acres*, being rather more than one-third of the surface of Great Britain. The population 3,061,251 *persons*; the increase in the last decade was 172,509; or 6·6 per cent. only. This is not much more than *half* the rate of increase, decennially recorded at the previous enumerations. Twelve counties exhibit absolute loss in their numbers, to a greater or lesser extent. In the return from Kincardine, it is stated that young women, who have been moderately educated, prefer domestic service to field work; and that, consequently, the proportion of females employed is annually decreasing.

The number of adults ascribed to the agricultural class in the census of 1851, was 284,906, or 18·2 per cent. of the adult population of that year. The ninth class in the census of occupations (1851), embraces all persons, male and female, aged 20 years and upwards, who are immediately dependant on the cultivation of the land, in their various capacities as landowners, farmers, labourers and their adult kinsfolk; namely, as—

CLASS IX.—Persons Possessing or Working the LAND, and engaged in Growing GRAIN, FRUITS, GRASSES, ANIMALS, and other Products:—

Sub-class 1. In fields and pastures	275,171
„ 2. „ woods	1,909
„ 3. „ gardens.....	7,816

It is worthy of note, that the proportion of adult females employed in Scotland in "fields and pastures," to the adult males, is nearly double that in the corresponding class in England; in the former country the ratio is 54·8 per cent.; but, in the latter, it is only 30·3 per cent.

Weekly Wages.—The *men's* range from 8*s.* to 15*s.*; but the lower term is exclusively confined to Shetland, which, being insular and remote, has no doubt causes in operation which depress wages far below the other counties. The average is 12*s.* 11½*d.* But taking the figures *exclusive* of Shetland, the range is 11*s.* to 15*s.*; the average 13*s.* 1*d.* The women's range from 4*s.* to 7*s.* 6*d.*; the average being for *all* Scotland, 5*s.* 7*d.* Children under 16, receive from 2*s.* to 6*s.* 6*d.*, equivalent to an average on all the counties returned of 4*s.* 3¾*d.*

Task Work.—In some counties the system of allotting work by the task, or job, appears not to be usual; but where it prevails, it is principally confined to the *men*. Their weekly earnings, in twenty-four counties, varied from 12*s.* to 18*s.*, which yields an average of 14*s.* 6¾*d.*

Harvest Wages.—In respect of seventeen counties, where the weekly wages of this season are stated, it appears that the *men's* range from 14*s.* to 25*s.*; the average being 18*s.* 7*d.* The *women's* wages, in respect of twelve counties, range from 8*s.* to 15*s.*; average 11*s.* 4*d.* These sums are considerably higher than the usual rate of wages in the same districts.

All the counties are represented in the parliamentary paper, except the four defaulting ones already mentioned. The returns were compiled in the Crown Office, Edinburgh, and the Crown Agent has appended the following note to them:—"The returns have been "made by the sheriff clerk of each county, most of whom obtained "their information from a few of the leading farmers in their respective counties. It is difficult to obtain accurate information with "regard to food, &c., and the information in the returns can only "be regarded as exhibiting an average of payment and maintenance "of agricultural labourers in different counties in Scotland."

It may be useful, in connexion with the rate of wages in Scotland, to state, in this place, upon the authority of a parliamentary paper, published in 1855,* but, relating to the previous year, some particulars of the agricultural produce and stock of that country.

The return is for 12,613,342 imperial acres; of which quantity 2,003,692 acres were under tillage; 9,234,990 were in grass; and 1,374,660 were occupied by roads, wastes, and woods. Of the land under tillage, more than half was devoted to cereals, the principal

* "Report of the Highland Society on the Agricultural Statistics of Scotland." Presented to both Houses, 1855.

crops were oats 932,994, barley 207,507, and wheat 168,216 acres. The principal root crops were turnips and potatoes, of the former there were 433,916, and of the latter 143,032 acres.

Of the acres in grass, 6,530,843 were sheep walks; 1,427,790 "grass in the rotation of the farm;" and 1,207,101 in permanent pasture. In respect of the live stock, there were 4,787,235 sheep of all sorts; cattle, exclusive of milk cows, 438,334; milk cows 292,365; calves 205,172; swine 163,683; and horses 156,595. It should be stated, however, that these numbers have been summarised from schedules that were issued by the Highland Society, and which were not sent to any tenant in the lowlands, rated below 10*l.*; nor to any in the highlands below 20*l.* The surface under cultivation, according to the returns thus limited, is *three-fifths* of the whole area of Scotland.

IV.—*Demand and Supply of Agricultural Labour.*

The return, from which the rate of wages, in 1860, is abstracted, was confined in its form to ascertaining that chiefly; yet, the Scotch, like the English respondents, took the opportunity of adding to the information they afforded upon the main object, some remarks as to the supply of labour. In several districts the demand appears to be in excess of supply; in others, the sufficiency of supply is spoken of in a tone which rather implies an exceptional condition. Thus, employing the words of the return, and commencing with the counties deficient in labour, it is stated that—

"There is a want of labourers in Orkney, said to arise owing to the call for labourers to make roads, and the drain from emigration."—(Orkney.) "The supply of the labour is abundant in the neighbourhood of towns, but less so in the country, where there is a pressure of farm-work."—(Inverness.) "The labour market is by no means overstocked, there being at some seasons a great scarcity of hands."—(Nairn.) "Labourers generally scarce."—(Forfar.) "Good hands in harvest get from 3*s.* 6*d.* to 4*s.* 6*d.* per day, without any allowance; scarce to be had. In piecework they can make 5*s.* per day. Women can get half of men's pay."—(Dumbarton.) "Labour market has been high of late, owing to railway operations in the district."—(Kirkcudbright.) Other counties speak in this wise: "There is always a full demand for labourers, and hitherto the supply has kept pace with the demand."—(Caithness.) "On the east coast of the county, which may be said to be the only agricultural part of it, the supply of labourers was about equal to the demand. In one parish only was there a difficulty in procuring labour."—(Sutherland.) "There is a sufficient supply of labour."—(Elgin.) "At present there is sufficient employment for male labourers at the rate stated, and the supply of labour is

“adequate.” “Young women who have been moderately educated dislike agricultural labour, and prefer domestic service. In consequence, the proportion of females employed is annually declining.”—(Kincardine.) “Since the introduction of reaping machines, the difficulty of getting labourers is not so great. The price of labour is gradually rising.”—(Fife.) “In harvest labourers are scarce, and receive from 3s. to 4s. per day. During the remaining portion of the year the labourers are sufficient.”—(Renfrew.) “The labour market in these two districts* is on the advance, many of the best labourers being now employed by the mineral tenants as pitheadmen, &c., and earn from 16s. to 18s. per week, with constant employment.”—(Ayr.) “The supply of labour in the vicinity of towns and villages is generally sufficient, but in some parishes is barely equal to the demand.” “From the influx of Irish labourers, both male and female, the rate of wages in the labour market has been greatly reduced. An opinion prevails, were it not for the Irish labourers, the labouring work in some parts could not be extensively or conveniently executed.” “It is thought that if better accommodation in cottages, with an increased use of the family comforts of the married agricultural servant, were provided by the farmers, the strong tide of emigration going on amongst agricultural labourers would be stopped.”—Lanark. “There is a sufficiency of labour generally to meet the demand, and abundance during the harvest of 1860.”—(Berwick.) “The labour market is sufficiently supplied except for drainage. This is done almost entirely by Irishmen.”—(Selkirk.)

Connected with this subject, is the influence which the demand for labour in the mining and manufacturing districts, exercises over the wages of the agricultural population. Taking the results of the three groups, we find that *the rate of wages is inversely as the proportion of adults engaged in agriculture*; or, in other words, the rate is directly as the demand for labour in the mining and manufacturing occupations of the same district. This will be clear upon an inspection of the following table:—

Groups.	Ratio per Cent. of Adult Population occupied in Agriculture, 1851.	Average Weekly Wages.							
		Men.				Women.	Children under 16.		
		Ordinary Pay.		Task Work.					
	Per cent.	s.	d.	s.	d.	s.	d.	s.	d.
1. Northern	30·2	12	2 $\frac{3}{4}$	13	6	5	1 $\frac{1}{4}$	4	—
2. Midland	17·1	13	2	14	7 $\frac{3}{4}$	5	7 $\frac{1}{4}$	4	— $\frac{1}{2}$
3. Southern.....	12·1	13	2	15	3	5	11 $\frac{1}{2}$	4	9 $\frac{1}{2}$

* Carrick, and Kyle, and Cunningham.

V.—Rise in the Rate of Wages.

In discussing the English rate of wages, recourse was had to *official* documents, published and unpublished, for the purposes of comparison, as set forth in the Society's *Journal* (vol. xxiv, p. 340, *et. seq.*). But failing to obtain any information from similar sources, for the present occasion, the means of instituting a comparison have been found in the "New Statistical Account of Scotland." (Edinburgh, 1845.) It should be noted in the outset, that the parochial reports in that work, relate to different years, beginning with 1835, and terminating in 1844; and that, consequently, to the extent of any fluctuation which may have happened during those nine years in the rate of wages, the first term of the comparison wants that homogeneity which belongs to the second.

Before proceeding to place the wages of 1860, side by side with the payments made to labourers and farm servants in 1835-44, it will be interesting, in connection with the general question of the increased remuneration of the Scotch peasantry, to exhibit in this place some passages, taken from the survey, bearing upon their condition, at much earlier periods.

"In 1660, a ploughman received 10*l.* scots (16*s.* 8*d.*), with pair of shoes and stockings for half-a-year's service. * * * A common labourer half a merk (6*2*/*3**d.*), without meat, and forty pennies with meat and drink.* In 1836, a good ploughman got from 9*l.* to 10*l.* sterling, with bed, board, and washing for six months' service."†

In the parish of Moulin, Perthshire, the money wages are stated to have been for a—

	1743.			1750.			1755.		
	£	s.	d.	£	s.	d.	£	s.	d.
Man servant for a year	1	13	—	1	19	—	—		
Women ,, 	—	16	6	—			—	18	10

These servants would have been lodged and fed by the farmers.‡
In the parish of Monimail, Fifeshire, the daily wages of the labourer and the yearly wages of the ploughman are given, thus§—

	1750.			1790.			1810.			1834.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Labourer, per day.....	—	—	5	—	—	10½	—	1	10	—	1	4
Ploughmen, per year	2	5	—	6	10	—	16	—	—	10	—	—

* For a day's work—forty pennies scots = 3½*d.*
† "Statistical Account, Scotland," vol. vi, p. 388.—(Rutherglen.)
‡ Ibid. vol. x, p. 655.
§ Ibid. vol. ix, p. 42.

In the parish of Crieff, Perthshire*, the wages are set out as follows:—

	1772.	1792.	1837.
	£ s. d.	£ s. d.	£ s. d.
Men servants' average yearly wages, exclusive of board	3 6 8	10 10 -	12 12 -
Maid servants' average yearly wages, exclusive of board	2 2 -	3 3 -	6 - -
Best labourers', per day	- - 9	- 1 -	- 1 10

In the parish of Glenisla, in Forfarshire, the payments were in respect of—

	1791.	1838.
	£ s. d.	£ s. d.
Ploughmen, per year, with maintenance	7 10 -	13 - -
Maid servants „ „	3 6 6	7 - -
Labourers, men, per day	- 1 -	- 1 6
„ women, „	- - 3	- - 7

It is mentioned several times in the “New Statistical Account,” that the rate of wages were much lower about 1836, than they had been some twenty years earlier. Thus, in Dunfermline, Fifeshire, the wages of day labourers were stated to have been in 1818, at 1s. 8d. to 2s. 3d.; but in 1838, the rate had fallen to 1s. 6d. to 1s. 8d. In Monimail, in the same county, the day wages in 1810 were 1s. 10d.: but in 1834, only 1s. 4d.

The Reporter for the parish of Girvan, in Ayrshire, states that “The wages of farm servants are lower than they were fifteen or twenty years ago. Then 20*l.* a-year, with bed and board, was quite common for able experienced servants, whereas now, the same descriptions of persons can easily be had for 14*l.* to 16*l.* a-year. Lads, again, able for the most kinds of men’s work, can be readily had for 9*l.* to 12*l.* Girls fit for managing a dairy, get about 8*l.* And house servants, particularly in the town, get from 4*l.* to 7*l.* a-year.”†

When we compare the rate of weekly wages of men in 1860, with those alluded to above, as variously ascribable to the years 1835-44, which, upon the mean period, afford an interval of twenty years, the following results present themselves:—

* “Statistical Account, Scotland,” vol. x, p. 511.

† Ibid. Report on the parish of Girvan, 1837.

Groups.	Counties.	1835-44.	1860.	Increase.
		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Northern	7	8 1	12 2	4 1
Midland	5	9 9	13 2½	3 5½
Southern	5	9 5	13 -	3 7
Scotland (part of)	17	8 11	12 8½	3 9½

The rise in the rate of wages to male day labourers, in the *seventeen* counties to which the comparison is astricted, by the data in the first term not being obtainable for more, is 42·5 per cent. (See Appendix, Table III.)

The comparative wages of the female day labourers can only be shown for five counties in the northern, and for three, in the midland group. The proportionate increase was higher than that obtained by the men, being equal to 58·5 per cent.

Groups.	Counties.	1835-44.	1860.	Increase.
		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Northern	5	3 4½	5 7	2 2½
Midland	3	3 9	5 2	1 5
Scotland (part of)	8	3 5	5 5	2 -

On referring to Table III (Appendix), the reader will be struck with the great increase in the wages, of men and women, which has taken place in Orkney; the weekly wages of the former have risen from 6*s.* 10*d.* to 12*s.*, or 75 per cent.; those of the latter from 3*s.* to 6*s.*, or 100 per cent. A friend, to whom I am otherwise indebted for valuable information, in connexion with this paper, was so surprised at the rate of payment in that county, that he wrote to a gentleman residing at Kirkwall, from whom he received the following reply:—
 “I was quite aware of the fact that Orkney is at this time the
 “best place for the labouring man in the United Kingdom, and must
 “continue to be while we have so much fine land to bring into culti-
 “vation, and while our native population have such a desire for going
 “to sea, and a more than Scotch desire for pushing abroad and rising
 “in the world. Most part of our labourers are now got from the
 “northern counties of the mainland, or from Aberdeen and Banff.”

The next class of labourers have, in addition to their money wages, board and lodging provided for them by their employers; or, they receive an equivalent benefit in the shape of rent, food, and firing. This class is sometimes hired by the year; but more frequently by the half-year. First on the list comes the ploughman, evidently a

functionary of considerable esteem in the economy of the Scotch farm.

The statistics are confined to a few counties; the particulars are given *in extenso* at Table IV (Appendix).

Groups.	Counties.	1835-44.	1860.	Increase in Yearly Wages.
		£ s. d.	£ s. d.	£ s. d.
Northern	2	7 1 9	11 10 -	4 8 3
Midland	3	12 3 6	18 4 8	6 1 2
Southern	2	16 12 -	22 - -	5 8 -

Hence it appears, according to the average of the seven counties, that the yearly wages of the Scotch ploughman has risen, in the term indicated, from 12*l.* to 17*l.* 8*s.*; or 45·0 per cent.

Next on the list follow the male farm servants; the information in this instance, only relates to four counties:—

Groups.	Counties.	1835-44.	1860.	Increase in Yearly Wages
		£ s. d.	£ s. d.	£ s. d.
Northern	2	9 8 9	20 15 4	11 6 7
Midland	1	11 5 -	21 3 -	9 18 -
Southern	1	11 10 -	20 16 -	9 6 -

The comparative money wages of shepherds, the emoluments for pastoral services being usually received in a different form, can only be shown in one instance; namely, in—

County.	1843.	1860.	Increase.
	£ s. d.	£ s. d.	£ s. d.
Argyle	11 2 6	20 - -	8 17 6

The wages of dairymaids, in two counties, will complete this portion of the statement. The money was paid at both dates, in addition to board and lodging:—

Counties.	1838-40.	1860.	Increase in Yearly Wages.
	£ s.	£ s.	£ s.
Renfrew	8 10	10 10	2 -
Lanark	8 5	14 -	5 15

In connection with the improved fiscal position of the labourer, it is well to place here a paragraph taken from the survey of the parish of Penpont, Dumfries, if only for the purpose of eliciting comment. I do not know the worth, or currency, this mode of computing a labourer's welfare has obtained. "If," says the writer, "the calculation be a fair one, that the labourer is well provided when he can earn a peck, or half a stone, of meal in a-day, he must be much better provided when he can double it, as is here often the case." This was written in 1836, when at Penpont, the wages of men in winter were 1s. 4d.; and in summer 1s. 6d. a-day. In 1860, the average day wages of a man were 2s. 2d.; for which he could procure two half-stones and one-sixth of oatmeal, or 15¼lbs.

VI.—Cost of the Labourer's Food, Clothing, and Rent.

In searching through the "Statistical Account of Scotland" for the rate of wages formerly paid to agricultural labourers, the prices of food, at several dates, were met with in a few instances. Those statements, from the light they may throw upon the condition of the labourer, as well as by reason of their intrinsic interest, are given here.

The first is for the parish of Monimail, in Forfarshire. Salmon in 1750, when it was sold at 1½d. per Dutch pound, would not then be an article unknown to the peasant's table. At that date his day wages were 5d., with which he could therefore purchase 4lbs. *avoir-du-pois*, of that fish.

Description.	1750.	1790.	1810.	1834.
	d.	d.	d.	d.
Beef and mutton, per lb.*	2	4	8	5½
Hens, each	4	12	18	18
New butter, per lb.*	4	8	11	9
Eggs, per dozen	2	4	12	8
Salmon, per lb.*	1½	5½	8	8

* The lb. is the Dutch pound of 20 ozs. Vol. ix, p. 42.

The second is for the parish of Crieff, Perthshire:—

Description.	1772.	1792.	1837.
	d.	d.	d.
Best beef and veal, per lb.....	3	4	5
„ pork „	3	4	4
Fowls, each	6	9	15
Chickens „	2	3	9
Eggs, per dozen	2	3	7

Vol. x, p. 512.

A table, in some detail, of the prices of food, clothing, coals and house-rent, for the parish of Arbroath, Forfarshire, in the years 1812-19-26 and 1833, will be found in the Appendix (Table VI).

The following are the prices of a few of the principal articles of food:—

Description.	1812.	1819.	1826.	1833.
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
Wheaten bread, per qtn.	18	11	10	8
Oatmeal, per peck of 8 lbs. (Dutch)....	—	16	16	12
Potatoes, per stone of 16 lbs. „	—	4½	4½	4
Beef and Mutton, per lb. avoirdupois .	8	7	6	5¼
Butter „ „ „	—	10½	10	8

Another table, which will be also found in the Appendix (VII), exhibits the prices of food in seven counties, from 1835 to 1842. Since these are the years to which the earlier wages in Tables III and IV (Appendix) relate, they have an especial bearing upon the comparisons there instituted.

The average of prices of five articles in 1835-42, are here set out:—

	<i>s.</i>	<i>d.</i>
Beef, per lb. (imperial).....	—	5
Mutton „ „ „	—	5
Cheese, the stone of 24 lbs.	7	3½
Eggs, per dozen	—	5
Oatmeal, per 140 lbs.	19	—

The Orkney prices, which appear quite exceptional, are not included in the sum from which the average, just noted down, is deduced.

The following were the prices in 1841, in Sandwich, Orkney:—

	<i>d.</i>
Beef and mutton, per lb. (imperial).....	2
Fowls, per pair	16
Eggs, per dozen.....	3
Butter, per lb.	6

But this part of the inquiry, as bearing upon the main subject of the paper, the rate of wages in 1860, would have been very incomplete, if the prices of the food and clothing, usually consumed by the labouring poor, had been omitted in respect of that year.

The possible defect of the paper from that cause, whatever may be otherwise amiss in its treatment, is entirely averted by the kindness of Mr. Joseph Cundell, the Secretary to the British Linen Company, at Leith. That gentleman took considerable trouble to procure for me, through the local agents of his company, returns of the required prices from several counties. The value of the informa-

tion thus procured, will be gathered from an inspection of the tables appended (Tables VIII and IX).

The first set of tables represent the shop prices of food, soap, candles, and coals, paid by agricultural labourers in, or about, the half-year ended Christmas 1860. The tabulated average prices which immediately follow, are those of *ten* parishes referable to *nine* counties; namely, Orkney, Sutherland, Banff, Forfar (two), Perth, Argyle, Berwick, Peebles, and Lanark. It is believed that, looking to the tendency of prices in late years, to obtain a general level throughout the kingdom, the figures now presented are upon a sufficiently broad basis :—

			Average Prices in 1860.	
			s.	d.
Bread	per	4 lbs.	—	7½
Flour	,,	7 „	1	2½
Oatmeal	,,	7 „	1	—
Pot barley	,,	7 „	1	1
Potatoes	,,	14 „	—	7
Butchers' meat	,,	1 „	—	6½
Bacon	,,	1 „	—	8¼
Cheese.....	,,	1 „	—	5½
Butter.....	,,	1 „	1	—
Fish (fresh and salt) ...	,,	1 „	—	2½
Tea	,,	1 „	4	—
Sugar (moist).....	,,	1 „	—	5½
Coals	,,	1 cwt.	—	8½
Candles	,,	1 lb.	—	7½
Soap	,,	1 „	—	5

Having no account of the actual quality and cost of food consumed by the Scotch agricultural population, I have taken the dietary and outlay of a labourer, his wife, and five children, in the South Dublin Union,* as representing the measure and description of food required; and the Lanark table for the prices; substituting in the Scotch dietary, oatmeal and potatoes in due proportion for Indian meal. The Irishman and his wife earned from 10s. 6d. to 11s. 6d. a-week.

	s.	d.
Oatmeal, 24 lbs.	3	9
Buttermilk, 18 qts. (at 1½d. per qt.)	2	3
Potatoes, 42 lbs.	2	—
Tea, 2 ozs.	—	6
Sugar, 1 lb.	—	6
	9	—

This perhaps will be considered rather a restricted dietary for the Scotchman. But it will be seen, on a reference to Sir Andrew

* “Thirteenth Report of the Irish Poor Law Office,” p. 54.
† Ibid., p. 76.

Agnew's Return,* that where the farmers find the labourers in food, it is confined to a fixed allowance of oatmeal, milk, and potatoes. In those instances, however, the labourers do not dine at the farmer's table.

The cost of the labourer's clothing must next occupy our attention. There can be little doubt that all things considered, the working man of the present day, enjoys many advantages, in the quantity and quality of his clothing, which were unattainable by his class formerly.

In the parish of Moulin, Perthshire,† the following particulars of dress are reported, viz. :—

1756.			1839.		
	s.	d.		s.	d.
Single soled shoes, per pair	1	1½	Men's shoes, per pair	9	—
Double „ „ „	2	—			
Linen used for shirts by the } peasants, per yard	—	4	Women's „ „	6	—
Coarse cloth made in the } country for men's coats, per } yard	1	1½	Making a suit of clothes for } every day wear	6	—

And with reference to Knockands parish, Elginshire, the following:—

1835.		
	d.	s. d.
Home-made stockings, per pair	6 to 1	6
Plaiting, per ell	1	—
Shirting, according to quality	1	— and upwards.

It should be observed, with regard to the very full and serviceable tables of the prices of clothing, procured by Mr. Cundell, that the total must be, sometimes, taken to represent what the tradesmen, supplying the information, consider a labouring family ought to expend; rather than the expenditure which they absolutely incur. Thus, the Golspie Bill, irrespective of charge for the “Sunday suit” for the husband, would entail an expenditure of 6s. a-week. It is computed as the outlay for a man, his wife, and five children, thus:—

	£	s.	d.
Husband's Sunday suit (lasts four years)	4	11	6
„ wearing clothes (last one year)	5	8	—
Wife's clothes (last two years)	4	12	—
Two boys' clothes (last one year)	3	5	—
Three girls' clothes „ „	4	15	—
	22	11	6

* House of Commons, No. 244, Sess. 1861.

† “Statistical Account,” Moulin parish, Perthshire, vol. x, p. 665.

The next figures show the price of one year's clothing in the six selected counties, for a man, his wife, one boy and one girl, namely :—

	Dunse, Berwick- shire.	Banff, Banffshire.	Dunkeld, Perthshire.	Biggar, Lanark- shire.	Dingwall, Forfarshire.	Kirkwall, Orkney.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Husband's suit ..	2 13 —	3 18 6	4 9 2	3 — —	2 17 9	2 16 1
Wife's „	1 3 6	1 14 6	3 — 6	2 14 —	1 8 9	1 2 8
Boy's „	1 1 —	1 8 9	— 19 —	— 19 —	1 3 —	1 7 3
Girl's „	— 8 —	1 3 7	— 14 —	— 15 4	— 13 2	— 13 10
	5 5 6	8 5 4	9 2 8	7 8 4	6 2 8	5 19 10

Taking the mean of the foregoing data, we arrive at the following results :—

	£ s. d.
Husband's suit	3 5 9
Wife's „	1 17 4
Boy's (one) „	1 3 —
Girl's „ „	— 14 8
	<hr/>
	7 — 9

Probably the Orkney and the Perthshire tables (Appendix, Table IX), will present a fairer mean of the cost of the clothing of the Scotch peasantry. Both tables give the expense for a man, his wife, and *five* children (three girls and two boys) ; the first at 8*l.* 14*s.* 9*d.*, and the second at 11*l.* 9*s.* 8*d.*, hence the—

$$\text{Weekly cost per head} = 6\frac{1}{2}d.$$

The only information obtained for this paper, up to the present moment, of the rents paid by the Scotch peasantry, is given in Tables X and XI in the Appendix.

IRELAND.

VII.—Classes of Agricultural Labourers.

The writer of this paper is not aware that the great and beneficial changes, which the industrial pursuits of Ireland have experienced since the famine, have led to any material modification of the *classes* of labourers, as they existed before that terrible affliction. Then, they were thus described, “The labourers may be divided into three “ classes—unmarried farm servants, who reside with their employers ; “ cottars, who hold in addition to their cabin, a small lot of ground at “ a fixed rate, generally payable in labour ; and those who hold only a “ cabin, with perhaps a few perches of land as a garden, and who

“depend for their subsistence chiefly upon potatoes raised on land “taken as con-acre.”* At that time, the first-named class was considered to be far the most fortunate; and the last were spoken of as appearing to be “the most wretched among the many wretched “classes of Ireland.”

VIII.—*Rate of Wages in 1860.*

PROVINCE OF ULSTER.

This province is constituted of nine counties, extending over an area 5,475,438 *acres*; the portion under crops has increased 17 per cent. since 1847, as the following figures will show:—

Year.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	1,649,962	Acres. 283,988
'50	1,819,201	or
'60	1,933,950	17 per cent.

The population according to the census of 1861, was 1,910,408 *persons*; since 1851, the inhabitants have decreased 5 per cent. The number of persons in Ireland, who are engaged in agriculture is not known.

Weekly Wages.—The *men's* range from 6*s.* to 8*s.* 4*d.*; average 7*s.* 3½*d.* The *women's* wages 3*s.* to 5*s.*; average 4*s.* The *children's* 2*s.* 5*d.* to 4*s.* 6*d.*; average 3*s.* 2*d.* All the children returned in the tables are under 16 years of age.

Harvest Wages.—The *men's* in seven counties returned, range from 12*s.* to 15*s.*; average 13*s.* 2*d.* The *women's* in five counties, 8*s.* to 10*s.*; average 8*s.* 4*d.* The *children's* in four counties, 4*s.* to 7*s.*; average 6*s.* In Monaghan county, the ordinary wages are double for one month in spring, and for one in autumn.

Allowances.—Seldom any in addition to the ordinary wages as stated above. In Monaghan, it is mentioned, that, “When food is “given, it consists of potatoes and milk, or Indian corn-meal, stir-“about, and milk. No ale or spirituous liquors given.” But at harvest times food is often given in addition to the wages stated. It is observed in respect of county Down, that when the labourers are fed, the wages are usually 2*s.* or 3*s.* a-week less.

Task Work.—The *men's* weekly earnings range from 8*s.* 4½*d.* to 10*s.*; average 9*s.* 3¾*d.* The *women's* in six counties, from 3*s.* 6*d.* to 6*s.*; average 4*s.* 10*d.* The *children's* in five counties, from 3*s.* to 3*s.* 9*d.*; average 3*s.* 4*d.*

* Land's Commission, Ireland. Digest. vol. i, p. 474.

PROVINCE OF CONNAUGHT.

Five counties are within the limits of this province. Its area contains 4,392,043 *acres*; the total extent under crops in 1860, had increased 39 per cent., since 1847. The following figures relate to three periods, viz.:—

Year.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	583,416	Acres. 226,979
'50	683,914	or
'60	810,395	39 per cent.

The population in 1861, was 911,339 *persons*; since 1851, the decrease in this element has been 10 per cent.

Weekly Wages.—The *men's* range from 6s. to 10s. 2d.; average 7s. $-\frac{1}{4}$ d. The *women's* from 3s. 2d. to 5s.; average 3s. 11d. The *children's* from 2s. 6 $\frac{1}{2}$ d. to 4s. 6d.; average 3s. 1d.

Harvest Wages.—The *men's* are returned in respect of three counties, and the payments range from 8s. 6d. to 13s. 6d. per week; the average is 10s. 4d. In Sligo, where these wages were highest, namely 13s. 6d., diet was given *in addition*. In respect of two counties, the *women's* wages were 4s. and 5s. 6d.; and the *children's* 3s. and 3s. 9d.

Allowances.—Rare in this province. But in some of the districts of Sligo, two meals a-day are given to men, women, and children, apparently in addition to the ordinary wages, as stated in the Appendix (Table XIV).

Task Work.—The weekly earnings of the *men*, range in four counties, from 8s. to 10s. 6d.; average 8s. 10 $\frac{1}{2}$ d. In Galway county, the *women* average 4s. 9d.; and the *children* 3s. per week.

PROVINCE OF LEINSTER.

This division comprehends twelve counties. Its area is 4,876,211 *acres*; of which 1,724,444 *acres* were under crops in 1860. The cultivated area had increased since 1847, by 5 $\frac{1}{2}$ per cent.

Years.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	1,634,297	Acres. 90,147
'50	1,771,860	or
'60	1,724,444	5 $\frac{1}{2}$ per cent.

It will be observed, however, that Leinster fell off, in respect to

the extent of surface under crops, between 1860 and 1850, by 47,416 acres.

In 1861, the population was returned, in the census, as 1,439,596 persons. This is 14 per cent. less than it was in 1851.

Weekly Wages.—The *men's* range from 5*s.* 7*d.* to 8*s.* 9½*d.*; average 6*s.* 11½*d.* The *women's* from 3*s.* to 4*s.* 11*d.*; average 3*s.* 9*d.* The *children's* from 1*s.* 7*d.* to 3*s.* 9*d.*; average 2*s.* 9*d.*

Harvest Wages.—In eleven of the counties, the *men's* wages vary from 9*s.* to 18*s.*; the average being 12*s.* 9*d.* In the other county, Longford, the wages were 8*s.* 6*d.* *with food*. The *women's* range from 6*s.* to 13*s.* 6*d.*; average of eight counties 8*s.* 3*d.* The *children's* in six counties range from 3*s.* to 4*s.* 6*d.*; average 3*s.* 7½*d.* In Longford, the *women* had 5*s.* 8*d.*; and the *children* 4*s.* 1*d.* per week with food.

Allowances.—None whatever in addition to the ordinary weekly wages as set forth in the Appendix (Table XIV).

The return from Kildare, however, states the harvest wages *with* and *without* diet, thus:—

	With Diet, per Day.	Without Diet, per Day.
	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
Men	1 11	2 9
Women	— 9	1 4
Children under 16	— 4	— 7½

These payments are made “during the hurry of harvest.” In two or three of the counties, one or two meals per day are given to the labourers, in addition to the wages stated, during harvest.

Task Work.—The earnings of the *men* range in eleven counties, from 8*s.* to 11*s.* per week; average 9*s.* 8½*d.* The *women's* in six counties, vary from 4*s.* 5*d.* to 6*s.*; average 5*s.* 4½*d.* The *children's*, in the same counties, from 3*s.* 6*d.* to 6*s.*; average 4*s.* 4*d.*

PROVINCE OF MUNSTER.

Six counties form this province. Its surface comprises 6,064,579 acres; of that quantity 1,499,181 acres were under crops in 1860. On a comparison with 1847, the latter amount exhibits an increase of 9 per cent.:—

Years.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	1,370,900	Acres. 128,281
'50	1,483,317	or
'60	1,499,181	9 per cent.

The population in 1861 was 1,503,200 *persons*; during the last decade the people decreased 19 per cent.

Weekly Wages.—The *men's* range from 6s. 5½*d.* to 8s. 4*d.*; average 7s. 2½*d.* The *women's* from 3s. 6*d.* to 5s.; average 4s. 2¾*d.* The *children's* from 2s. 6*d.* to 3s. 6*d.*; average 2s. 11½*d.*

Harvest Wages.—The *men's* range from 10s. to 12s.; average 11s. 6½*d.* In four of the counties, *in addition* to these money wages, diet was given to the labourers. *Women's* in four counties from 5s. 6*d.* to 8s. 3*d.*; average 6s. 5*d.*; with diet *in addition* in two of the counties. *Children's*, in two counties only, 3s. 6*d.* and 4s. 3*d.*

Allowances.—In two, or three counties only, are there any allowances in addition to the ordinary wages. In Kerry, the men obtain “two meals daily of bread and milk.” In Cork, W.R., it is stated, that, “when diet is given, a deduction of from 2s. to 3s. per week is “made for men; and 2s. for women and children from the rates.” The food given in those cases “consists of bread or potatoes, or “Indian-meal stirabout, with milk *ad libitum*.” The same remark is applicable to the county of Waterford; food is very generally allowed the labourers in this province, in addition to the harvest wages, as stated above.

Task Work.—The *men's* earnings in respect of three counties, are stated to range from 7s. 8*d.* to 10s.; average 9s. In Waterford they are 5s. 6*d.*, with diet *in addition*. In three counties the *women's* job-work earning range from 5s. to 7s. per week; average 5s. 4*d.* The *children's* from 3s. to 5s.; average 4s. 3*d.* To the return from the county of Kerry, the respondent adds this remark:—

“*No task-work done*, with the exception of mowing, at which a “man can earn from 15s. to 20s. weekly, but no food is given. Farm “servants are paid from 8*l.* to 12*l.* annually. Women from 4*l.* to “6*l.*, with diet and lodging.”

ALL IRELAND.

Taking the stated particulars of the four provinces, we obtain the following results, in respect of the whole country. The number of statute acres is 20,803,271; of which the portion under crops has increased 14 per cent. in thirteen years:—

Years.	Acres under Crops.	Increase in 1860, compared with 1847.
1847	5,238,575	Acres. 729,395
'50	5,758,292	or
'60	5,967,970	14 per cent.

From these figures it appears that a quantity, lying between *one-third* and *one-fourth* of the entire area, is at the present time under crops.

The population, according to the last census, was 5,764,543 ; since 1851, the inhabitants had decreased 787,842 ; or 12 per cent.

Weekly Wages.—The *men's* range from 5s. 7d. in Kilkenny county to 10s. 2d. in Roscommon. It should be noticed that the wages for Longford, being returned in respect of the money portion only, are excluded from the range of rate given here, and in the Appendix ; the average was 7s. 1 $\frac{1}{4}$ d. The *women's* range from 3s. to 4s. 11d. ; average 3s. 11d. The *children's* from 1s. 7d. to 4s. 6d. ; average 2s. 11 $\frac{1}{2}$ d.

Harvest Wages.—The *men's* ranged from 8s. 6d. in Mayo county, or 2s. 6d. above the ordinary weekly wages, to 18s. in the county of Carlow ; or 11s. above the ordinary weekly wages. In several counties where the harvest wages were stated at 12s., and, in one case, 15s. per week, diet was given in addition to those sums. The average of the *men's* wages at that season was, exclusive of the value of the food given, which may be taken at 6d. per day, 12s. 4d. per week. The *women's* wages varied from 5s. 6d. to 13s. 6d. ; the average was 7s. 1 $\frac{3}{4}$ d. The *children's* from 3s. to 7s. ; the average 4s. The harvest wages were not returned for every county. The wages of the *men* have reference to *twenty-eight* ; of the *women*, *twenty* ; and of the *children* to *fifteen* counties. The harvest is generally stated to last four weeks.

Allowances.—The general practice is to give neither food nor drink, in addition to the ordinary wages. The returns state that the practice of giving food is much discountenanced in some counties ; especially since the famine. However, diet in many is still given to men, women, and children, at harvest, or, at “hurried times,” in addition to the money wages. It is stated in the return, that “diet is “very seldom given in Meath ; but when such is the case, 6d. per day “is generally deducted from men, and 4d. from women's wages.” In Cork, W. R., it is observed that “when diet is given, a deduction of “2s. to 3s. per week is made for men ; and 2s. for women and “children from the rates,” in the return.

Task Work.—*Men's* weekly earnings are returned in respect of *twenty-seven* out of the *thirty-two* counties of Ireland. The lowest rate was that of Tipperary county, where it was 7s. 8d. ; the highest, was that of West Meath and Kildare, where it attained to 11s. ; the average being 9s. 4 $\frac{3}{4}$ d. The earnings of *women* at agricultural labour, paid for on this system, ranged, in sixteen counties, from 3s. 6d. to 7s. per week. Those of *children* in fifteen counties, from 3s. to 6s. per week.

IX.—*Supply of Labour ; Rise in Wages.*

Though there are, in different counties, considerable variations in the relation between supply and demand in the labour market of Ireland, yet, a careful inspection of the return from which the rate of Irish wages is compiled, leads to the conclusion, that, the sister island, on the whole, is not overstocked, at the present day, with labourers. This is in satisfactory contrast to the experience of the Land's Commission, who, in the first volume of their "Digest of Evidence," affirmed that "no fact seems established more clearly by the Land Commission evidence, than that employment for the agricultural labourers is almost universally deficient."* The evidence of the general equilibrium of supply and demand is presented, in the following extracts, from Lord Dunkellin's return. The first series points to a positive scarcity of labour :—

Londonderry.—"Last harvest there was much difficulty in procuring hands for reaping, and wages high accordingly. in some parts of the county labourers were employed at 15s. per week, with diet; women 10s., and boys 7s."

Antrim.—"At that season of the year, generally speaking, labourers find no difficulty in obtaining employment in this county, during the months of October and November."

Tyrone.—"Throughout the county there appears to have been ample employment (except perhaps in the Newtown-Stewart district, which is mountainous) in November and December. The railway works going on (Omagh and Dungannon line), have of course added to the rates of labour somewhat, by making a great scarcity of it."

Cavan.—"In the harvest season the labour market is not over well supplied, and in spring and harvest the supply of labourers for the last few years has been scarcely equal to the demand; and for a few weeks at those seasons, high wages are demanded by labourers, and paid by the farmers."

Longford.—"At present there is a very good demand for labourers, at 1s. 6d. per day. The market rates very high for both food and fuel; and many of the labouring class suffer much, in consequence of having been unemployed during the winter season."

Wicklow.—"All the disposable hands, including male and female, are just now, and have been for some time past, in the receipt of full employment; while the railway, which is being constructed hence to Gorey, county Wexford, absorbs all male labourers that present themselves, by which means a scarcity of hands is in some instances felt by farmers."

Wexford.—"At present there are but few out of employment in this county. previous to this (in consequence of the severity of the weather) the labouring class suffered a good deal."

Cork, W.R.—"The labour market in this riding has, within the last few years, from emigration, and other causes, become at least 20 per cent. higher than previously, and the condition of the labourer must consequently have improved. This, however, is not so apparent to the casual observer, as the social habits of the peasant class, especially in the extreme west of the riding, seem to have undergone little or no change. Harvest work has within the last two years been done to a small extent by machinery."

The second set of extracts rather indicates, in some instances, that a sufficient supply of labour is an exceptional state; in other

* Vol. i, p. 473.

cases it shows that there was a scarcity of employment in certain districts, ascribable to the wetness of the season:—

Donegal.—"This county affords more than a sufficient supply of labourers for the work to be done in all seasons; but the rate of hire in harvest is high, owing to the temporary absence of the working class in Scotland and England during the season."

Fermanagh.—"In harvest, when there is a considerable pressure for a month, labourers get as much as 2s. and 2s. 6d. a-day, and women and children a proportionable amount. On occasions of this kind, labourers are sometimes fed, when at a distance from their residences. For at least half the year, there is scarcely any employment for an agricultural labourer, who is, in general, a married man, with a family, and may be considered in a state of destitution. The markets throughout this country are good, but very high."

Monaghan.—"In harvest and spring the rates increase to nearly double the sums stated, but this lasts only about a month at each season. Labour is easily procured except in harvest and spring; but even then the supply is equal to the demand, but of course at the increased rates."

Armagh.—"Labourers have been very badly off this spring for want of employment, owing to the wetness of the season; but should the weather set in dry, there will be plenty of employment."

Down.—"In harvest, a considerable portion of the labouring classes from some portions of this county, proceed to England and Scotland, where they can obtain good wages."

Leitrim.—"The labour market is generally overstocked, for many of the labourers go to Scotland and England to seek employment at hay and harvest time, during which period (for a few weeks) the average may run somewhat over the above rates."

Sligo.—"During the busy time of harvest, wages increased to 12s. and 15s. per week, with diet, in several parts of the county; the labour market was dull, and employment rather scarce, after the close of the harvest."

Mayo.—"In harvest the wages increase, for men, 8s. to 9s.; women, 5s. to 6s.; and children 3s. 6d. to 4s. weekly. There is no scarcity in the labour market."

Roscommon.—"I beg to state that during the harvest season, the rate of wages is considerably higher than at other periods of the year, and it was difficult to get a sufficient supply of labourers at that season; at other seasons of the year, there is a sufficient number of labourers to be had in the various parts of the county. Great numbers of the labouring classes of the people have been, and are now employed, in the railway works between Roscommon and Castlebar (through Castlerea), and also upon the line from Longford to Sligo (through Boyle)."

Galway, E.R.—"The supply of labour is quite sufficient, and in fair demand, except in part of the winter months."

Galway, W.R.—"The able-bodied labourers generally leave this country for England and Scotland in June, July, and August, where they procure higher wages than would be paid in any part of this country, and return home about the middle or latter end of October. I have to observe, that in very many instances the labourers* on small farms are the owners, and their families, and in some localities, I believe, barely any sum is paid for labour, particularly in the western and poorer places, where the people go in what is termed "core," that is an exchange of labour."

Westmeath.—"The weather has been so very unfavourable, that constant employment could not be given; consequently labourers are in many places in great distress. Agricultural pursuits continue in a very backward state; had the weather proved favourable, labourers would have had sufficient employment."

* Sic in orig.

Meath.—"During last harvest the labouring classes were fully occupied, at wages averaging weekly 14s. 6d. for men, 7s. 11d. for women, and 4s. for children. after that season terminated, employment became very limited, and were it not for that afforded by the formation of the Dublin and Meath Railway, in the eastern division of the county, the labouring classes would have suffered even greater privation this winter than they have hitherto done."

King's County.—"The demand for labourers at present is very limited, women and boys being nearly altogether without employment."

Kildare.—"The labour market well supplied, and, in some places, in excess of the demand."

Carlow.—"Owing to the wetness of season, the state of the labour market during the harvest was very unsteady. Wages rose and fell according to the changes of the weather, but there was no deficiency of hands. The crops did not ripen simultaneously, and the difficulties of saving them became considerable. The farmers took advantage of every favourable opportunity, and the labourers took advantage of the farmers, according to their emergencies. Consequently, mowing and reaping machines were brought more into use this season than in former years."

Kilkenny.—"Labour market well stocked."

Clare.—"The labour market was amply supplied during last harvest with hands."

Tipperary, S.R.—"The labour market in this county is fully supplied, if not overstocked; at present labourers are much distressed for want of employment, owing to the wetness of the spring; but a more permanent effect is produced on the labour market of this county by the gradual but steady system pursued by proprietors in laying down their tillage lands for dairy or pasture purposes."

Waterford.—"During one month in harvest, day's wages got up to 2s. for men, and 1s. for women, with food; but as the labour market is well supplied on all other occasions, day labourers are willing to hire with wealthy farmers at 10d. per day, without food, for the entire year."

In respect to the other counties, the condition of the labour market was not particularized in the returns.

Two years since, Mr. W. Hamilton, Poor Law Inspector, whose district lay partly in Leinster and partly in Munster, reported that—

"The supply of labourers has latterly been so much less, and the demand for them so much greater than was the case a few years ago, that their condition as regards employment and money wages, has been gradually and steadily improving, were it not for the high prices of provisions which have prevailed during some of the periods of this progressive improvement, the condition of the labouring classes would probably be better now than it actually is. For some time, however, prior to the late rise in the prices of provisions, the labouring classes were, as regards regular employment, money wages, and cheap food, better off in this part of Ireland than perhaps at any former period: food was abundant and cheap, there was ample employment, and wages were comparatively high. Very recently the prices of the various necessities of life have increased from 15 to 20 per cent. I need not say that even a trifling increase in the price of any article of general consumption is sensibly felt by the labouring poor; in the course of my present inquiry I heard and saw enough to convince me that the supply of mere food, to say nothing of other necessities for the children of this class, even with the highest rate of wages, and the lowest market prices, is still far from what is generally imagined."

It is fortunate that we have, in the evidence taken before Her Majesty's Commissioners appointed in 1843, to inquire into the "law and practice in respect to the occupation of land in Ireland," ample means for instituting a comparison with the present rate of

wages. For this purpose the rate of men's wages, as given in that evidence by nearly four hundred witnesses, has been abstracted and tabulated (see Appendix, Table XV). The figures represent the *total* remuneration which the labourer gained by his weekly work ; where food was given to him, the money rate was lower, generally about 2*d.* a-day. Placing the figures of the two periods, in juxtaposition, we obtain the following results in respect of each province, viz. :—

Provinces.	Number of Counties Returned.	Weekly Wages of Men.		More in 1860.
		1843-4.	1860.	
		<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
I. Ulster	9	5 1	7 3½	2 2½
II. Connaught	5	3 9	7 ¼	3 ¾
III. Leinster	12	4 8½	6 11½	2 3
IV. Munster	6	4 —	7 1	2 11
Ireland	32	4 6	7 1	2 7

The rise in men's wages, throughout Ireland, is equal to 57·4 per cent. The highest rise, is in the province, which in 1843-4 was the lowest paid ; namely,—Connaught, where it is equal to 87 per cent. It was stated, by some of the witnesses examined before Lord Devon's Commission, that in some parts of Galway, men were glad to obtain employment at 4*d.* and 6*d.* for a day of thirteen hours' work. The rates of both years, and for each county, will be found in the table appended.

The proportionate increase in the women's wages is in some of the counties much greater than that obtained by the men. These wages were for the earlier year, stated in the evidence in respect to the eight counties only, which are entered in the following table :—

Provinces and Counties.	Women's Weekly Wages.		More per Week in 1860.
	1844.	1860.	
	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
I. ULSTER—			
1. Donegal	2 3	3 5	1 2
3. Antrim	3 —	4 6	1 6
4. Tyrone	3 —	4 1	1 1
II. CONNAUGHT	—	No return	—
III. LEINSTER—			
25. Kilkenny	3 —	3 —	nil
26. Wexford	3 6	3 6	nil
IV. MUNSTER—			
27. Clare	2 —	4 6	2 6
30. Kerry	2 —	4 —	2 —
31. Cork	2 6	4 2	1 8

It is worthy of note, that women's pay in the three counties of Munster, has, on the average, risen upwards of 100 per cent.; while in the two counties of Leinster no change has taken place.

The remuneration which the agricultural labourer gains, compared with the wages which the mechanic and skilled workmen obtain in the same district, may be fittingly presented in this part of the paper. The seventh and eighth annual reports of the Irish Poor Law office, afford the data required for such comparison. The following figures, representing the mean results of twelve inspectors' districts, are summarised from the table in the Appendix (Table XVI). They relate to the weekly wages paid in the years 1854 and 1855 :—

	s.	d.
An agricultural labourer	6	4
A weaver	9	6
„ tailor	12	—
„ shoemaker	12	8
„ baker	16	2
„ carpenter	17	10
„ bricklayer and mason	18	2

Taking the agricultural labourer's wages of 6*s.* 4*d.* as *unity*, the following scale is constructed to exhibit the proportionate weekly earnings of each description of worker; thus :—

The agricultural labourer	1
„ weaver	1½
„ tailor	2
„ shoemaker	2
„ baker	2½
„ carpenter	2¾
„ bricklayer and mason	3

But the means of the Irish agricultural labourer, like those of his fellow workman in England, are not measured by his money wages alone. His wife and children, as the returns indicate, assist him in the labours of the field; or the wife and daughters carry on some small domestic manufacture, such as sewing, by which 1*s.* 6*d.* to 2*s.* a-week is earned. Perhaps the wife “flowers” (embroiders?), for which she will obtain about the same rate of payment. Then, that very important animal in the economy of the peasant's cabin, is not to be forgotten,—the pig. He is bought for 10*s.** say; shares the “bed and board”† of his master, and in due season is sold for 2*l.*; or cut up into pork, or dried into bacon for the family consumption. Ducks and fowls frequently join the family circle, and to some profit, it may

* “Thirteenth Annual Report.” Inspectors' Reports on the Diet of the Irish Poor.

† Ibid.

be inferred, from the remark of one of the inspectors, who states that—

“The other day I went into a small shop in a remote village of the county Donegal, and the man of the house told me he purchased 30,000 eggs from the peasantry about him every week during the summer, and he said he sold on an average 30*l.* worth of tea in a week.”

The next remark was appended to the Tipperary dietary, printed in the next section. The worthy subject of it, must, one would imagine, be quite the “model peasant.”

“The head of the family, M.K., is what is here called a cottier-labourer; he has 7*s.* a-week wages (constant work); he has a cottage and nearly two acres of land, for which he pays 2*l.* 14*s.* a-year, and he has also the grass of a cow, for which he pays 2*l.* 8*s.* a-year; he has a donkey, with which he draws turf-mould from the bog as manure; he keeps a pig, sometimes two, and his wife keeps and rears poultry (ducks and hens); she sells the young ducks and chickens and eats and sells the eggs. The pig and poultry account for the large consumption of potatoes, as they get the leavings liberally. The wife also makes and sells some butter. Their cottage is kept in good order, and the man, and wife, and children well clad; they have a few pounds saved, and never trouble the loan fund.”

Mr. Horsley, speaking of the greater demand and more steady employment for labour, observes, in exemplification of the assistance which the wife, and some of the children, bring to the labourer's means, that—

“As regards the weekly wages of the classes in question, I think I am justified in stating, that any really able-bodied man can earn 1*s.* per diem on an average throughout the entire year; and in some districts where labour is scarce, and the demand for it consequently good and continuous, even a higher rate of wages obtained. And whilst this is the case, there is also at times a demand for the labour of the wife and the junior members of the family; so that, in the case of a family of six, including husband and wife, the weekly earnings may amount to 10*s.*, 11*s.*, or 12*s.*; and in some districts to even more than the last-mentioned amount. When to this amount of weekly earnings *in money* are added the advantages derivable by the family from growing potatoes for their own use, and for fattening a pig, and from the keeping of poultry, &c., it is manifest that even the worst circumstanced of the labouring classes are in a much better condition at present with respect to the quantity and quality of the food obtainable by them than they have been at any period since the famine years; and this gratifying fact is clearly evidenced by their greatly improved appearance in all that relates to health and comfort.”

X.—*Labourers' Expenditure for Food, Clothing, and Rent.*

Minute and extensive information as to the dietaries of Irish agricultural labourers, is contained in the Reports of the Poor Law Inspectors, published in the appendix to the thirteenth annual report of the Irish Poor Law Office. A few extracts from that publication, will give a sufficient description of the diet upon which the agricultural poor of Ireland support themselves, and their families.

Mr. Robinson, Poor Law Inspector of a district of unions lying in eight counties in Ulster, states, that—

“ The diet of the labouring classes in agricultural districts, consists principally of oatmeal or Indian-meal porridge, and potatoes with buttermilk. The proportion of potatoes consumed, varies according to the season of the year; but I think that at present they are used, on an average, at one meal.

“ In some cases the heads of the family have tea, and flour or oatmeal cake for breakfast; and whenever this is the case, a portion is given to the children, who almost invariably partake of whatever food their parents are able to provide.

“ Occasionally a piece of bacon is obtained for Sunday's dinner, and sometimes herrings or eggs are substituted for the usual dietary; but the consumption of these articles, as well as of tea, varies according to the circumstances of each labourer, some being unable to procure them at all; while others, whose means are increased by the earnings of their wives or children at weaving or other work, have tea three or four times a-week, and bacon always once a-week; and perhaps more frequently. New milk hardly ever forms part of the diet. In most cases the children have three meals in the day, those cases in which they have only two, being quite the exception; and in general, they are taken at regular hours.”

Mr. R. Hamilton, Poor Law Inspector for another district in the same province, gives the following description of the labourer's dietary, and its cost:—

“ The dietary which seems to be generally in use amongst the lowest classes of the peasantry, is—for breakfast, stirabout and buttermilk; for dinner, potatoes and buttermilk; and for supper, stirabout and buttermilk.

“ The children invariably take their meals with their parents, and I think that in nearly every case, they have three meals in the day.

“ It is extremely difficult to ascertain the quantity of food consumed by a family; and the statements made to me on this subject are conflicting.

“ Where the provisions are purchased weekly, one would suppose the information to be tolerably correct, but on inquiry you find that dogs and poultry (generally a good many), and very often a young pig, are fed in the house.

“ The average cost for maintenance outside of the house seems to be about 1s. a-week for each member of the family.

“ A man in full employment, with a wife and five children over seven years of age, appears to purchase about 40 lbs. of meal, seven stone of potatoes, and thirty quarts of buttermilk.”

From the same report, the five following dietaries have been selected, rather by way of illustration, than for the purpose of presenting them as average examples. The weekly cost per head for the five is 1s. 3½d., which is much above Mr. Hamilton's average:—

County.	Total Number of Members of such Family.	Articles of Food generally used in the Family.	Quantity of each such Article used per Week.	Cost of each such Article at Ordinary Market Prices.	Number of Meals per Day given to the Children.	Observations as to Cooking, &c.
Donegal	8 (6 c.)	Indian meal Potatoes Buttermilk	30 lbs. 18 st. —	<div>s. d.</div> <div>2 9</div> <div>2 9</div> <div>— 4</div> <hr/> <div>5 10</div>	3	—
Tyrone.....	6 (4 c.)	Oatmeal Indian meal Potatoes Tea & sugar Buttermilk	30 lbs. 30 „ 8 st. — 36 qrts.	<div>3 9</div> <div>2 9</div> <div>1 6</div> <div>— 6</div> <div>1 —</div> <hr/> <div>9 6</div>	3	Meal used in stir-about.
Galway.....	6 (4 c.)	Oatmeal Potatoes Milk Eggs	24 lbs. 10½ st. 24 qrts. 40	<div>3 —</div> <div>3 6</div> <div>2 —</div> <div>1 6</div> <hr/> <div>10 —</div>	3	A large number of the labouring classes in this union feed hens.
Westmeath	5 (3 c.)	Indian meal Oatmeal Potatoes Milk Flour Tea Sugar	<div>1 st.</div> <div>¾ „</div> <div>10 „</div> <div>24 qrts.</div> <div>¼ st.</div> <div>1 oz.</div> <div>¾ lb.</div>	<div>} 2 6</div> <div>2 6</div> <div>1 6</div> <div>— 6</div> <div>} 0 7</div> <hr/> <div>7 7</div>	—	—
Tipperary	6 (4 c.)	Potatoes Meal..... Milk Butter Tea Sugar Bacon	<div>12 st.</div> <div>14 lbs.</div> <div>10 qrts.</div> <div>1 lb.</div> <div>2 oz.</div> <div>½ lb.</div> <div>½ „</div>	<div>4 —</div> <div>1 7</div> <div>— 10</div> <div>— 9</div> <div>— 6</div> <div>— 3</div> <div>— 3</div> <hr/> <div>8 2</div>	3	Whole wheaten meal made into bread on a grid-dle, is used twice a-week; and tea and sugar is only used on Sundays, and meat once a-month, on Sundays; occasionally an egg.

Note.—“Thirteenth Report of the Irish Poor Law Office,” pp. 28—81.

In the same report the average weekly cost of a man, his wife, and four children, for food only, is set out for fifteen unions as 6s. 9¾d.; or 1s. 1½d. each person.

In taking the average in country districts, of all those dietaries of independent labourers, which the Poor Law Commissioners published in 1860; and, for certain of which the particulars are given for separate counties, in Table XVII (Appendix), it will be found that the weekly cost, in respect of each member of the 168 families returned, was *thirteen pence*.

In the table which follows, the Ulster dietaries are greatly, in the matter of cost, below those of the other provinces. I am not able to offer any explanation of this circumstance:—

Provinces.	Number of Families.	Average Number of Persons in each.	Weekly Expenditure for Food.		Rate per Head.	
	No.	No.	s.	d.	s.	d.
Ulster	78	6·3	5	9½	—	11·0
Connaught	12	6·3	8	1½	1	3·5
Leinster	35	6·0	7	6¾	1	3·0
Munster	43	6·2	8	4	1	4·1
Total	168	6·4	6	11¼	1	1·0

Mr. Lucas, Poor Law Inspector for parts of the counties of Clare, Limerick, and Tipperary, has given the following parallel, of the quantity and description of food consumed by the same family, when supporting themselves by work, and when maintained in the Rathkeale Workhouse:—

OUT OF WORKHOUSE.	IN WORKHOUSE.
<i>Existing by Earnings.</i>	<i>Supported by Poor Rate.</i>
24¼ lbs. Indian meal.	14½ lbs. of Indian meal made into stir-about.
28 ,, brown flour.	25 ,, 6 ozs. wholemeal bread.
28 quarts of sour milk.	3½ ,, white bread.
	52½ pints of skim milk.
	24½ ,, new ,,

“ It will here be seen that although the quantity of solid food usually used by this family is greater than the workhouse allowance, still that is met by more nutritious and suitable food, and an adequate allowance of new and skim-milk, most essential elements for the development of the growth of children.”*

The change in the Irish dietaries, in consequence of the failures of the potato crop, and the consequent replacement, to a considerable extent, of that esculent by Indian-meal, eaten as “stirabout” or as “griddled bread,” is too remarkable to be overlooked. Mr. Horsley has stated, in the two paragraphs that follow, in what proportion the

* “ Thirteenth Report of Irish Poor Law Commissioners.”

one description of food, supplies the place of the other, at the labourer's meal:—

“ When Indian meal is exclusively used, the quantity per day consumed by a man, is 3 lbs. ; by a woman, 2 lbs. ; and by children under 15 years of age, $1\frac{1}{2}$ lb. on an average.

“ When potatoes are exclusively used, the quantity per day for a man is $10\frac{1}{2}$ lbs. ; for a woman, 7 lbs. ; and for children under 15 years of age, from 5 lbs. to 6 lbs.

“ When both articles are used, and this is generally the case except in the summer and autumn months, the quantity of each is made to correspond with the amount of nutritive matter that would be derived from the sole use of one or the other of them.”*

The introduction of Indian-meal, as an article of food for the Irish labourer, is a dietetic and social advantage over his previous economy of some importance. The Irishman now depends less upon the potato, a root which has earned, eminently in Ireland, the bad repute of laziness and treachery ; and, in exchanging $10\frac{1}{2}$ lbs. of the tuber, for 3 lbs. of the meal, he gains a large increase of nutritive power.

In evidence of this fact, the subjoined table has been compiled upon the authority of Dr. Lankester's “ Lectures on Food :”—

Article of Food.	Heat-giving.						Flesh-forming.	Total.		
	Starch.		Fat.		Sugar.		Gluten.			
	ozs.	grs.	oz.	grs.	oz.	grs.	oz.	grs.	ozs.	grs.
3 lbs. maize	28	306	3	303	0	63	5	246	37	438
10½ lbs. potatoes.....	25	380	0	157	4	422	2	90	32	569

The superiority is considerable both in the heat-giving and flesh-forming properties of the substituted food, the nitrogeneous compound gluten being more than doubled.

The alleged greater amount of nutrition in the English workhouse dietaries, has been brought into disparaging comparison with those sanctioned for the Irish workhouses. Upon this question, which bears very pertinently on the dietetic economy of the peasantry, the Poor Law Commissioners have made some comments ; they state, in their report for 1860, that—

“ An opinion has prevailed, that because the dietaries of English workhouses are much more expensive than those of Irish workhouses, and because the former are not redundant or wasteful in quantity, that the Irish dietary must be very deficient in nutriment.

“ This is a mistake however, which has been exposed by English medical and chemical authority of the very highest character ; for it has been found, on careful

* “ Thirteenth Report of Irish Poor Law Commissioners.”

analysis, that the cheap Irish dietary contains not only more nutriment, but more nutriment of the azotised, and therefore more valuable kind, than the expensive English dietary.

“The solution of this apparent anomaly is very simple. The expensive articles of meat, cheese, butter, and tea, do not contain nutriment in proportion to their costliness, or at all to be compared with the nutriment obtained for the same money value in oatmeal, Indian meal, whole meal of wheat, milk, and buttermilk, which are the staple articles of the Irish workhouse diet.

“For example, Dr. Carpenter has affirmed that 16 ounces of buttermilk, or one pint, contains as much nutriment as a quarter of a pound of meat. Now, in most parts of Ireland where butter is made for exportation, a gallon of buttermilk can be purchased by retail for less than 2*d.*; *i.e.* at the rate $\frac{1}{4}$ *d.* per pint. Now, a quarter of a pound of good meat is worth, both in England and Ireland, about $1\frac{1}{2}$ *d.*; and assuming the high chemical authority above quoted to be correct, here is at once a proof that the same amount of nutriment may be had by the use of one article of food which it requires six times the expenditure to procure from another article.

“We believe that this and similar comparisons furnish the true explanation, not only of the difference in cost of a sufficient workhouse dietary in England, and a sufficient workhouse dietary in Ireland, but of the still more difficult social problem, how a poor man, not occupying land, and earning in Ireland 1*s.* per diem, can support a wife and four or five children, and pay his rent and purchase clothing,”

The County Inspector for Antrim, states in respect of the year 1860, that “the produce market is very high:”—

	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
Potatoes, per stone (14 lbs.)	—	8	to	— 9
Bread, per 4 lbs.	—			— 8
Flour, per stone	—			2 6
Oatmeal, „ „	—			2 4
Meat, per lb.	—	6	„	— 9
Butter, „ „	1	2	„	1 4
Milk, per quart	—			— 3½

And, he adds, that “all other commodities” are “equally high.”

The cost of the clothing used by an Irish peasant, and by his family, has now to be considered. I have in this place to acknowledge my obligations to Mr. Benjamin Banks, the gentleman who holds the position of chief clerk, in the office of the Poor Law Commissioners for Ireland. Mr. Banks has furnished, for this paper, several very valuable accounts of the quantity, quality, and price of articles of clothing, such as are actually purchased by the agricultural labourers in various parts of the sister country. Some of these accounts will be found in the Appendix *in extenso* (see Tables XVIII).

The cost of one year's clothing for a man, his wife, and five children, in the county—

	£	<i>s.</i>	<i>d.</i>
Of Mayo is returned as	5	9	4
„ Galway „ „	4	3	—
„ Limerick „ „	8	—	6
„ Donegal „ „	5	9	8

In the Donegal account, printed below, there is a remark on the labourer's clothing, which, as exhibiting the practice of the people, in that part of the country, in the use of their habiliments, is instructive. Speaking of the labourer, from whom the particulars of the cost of the family clothing was obtained, my informant says he "is a fair specimen of the class, and was the only one from whom I could obtain the required information, and in fact scarcely a labourer in this county could tell what his clothes cost him. As for females, those who can afford to buy shoes, wear them not more than six hours in the week."

The next account was procured for me by Mr. Banks, from the labourer's employer. This shows that the weekly rate of expenditure in this family was only $2\frac{3}{4}d.$ per head. The cost in the Irish work-houses for clothing, was $1\frac{3}{4}d.$ above that of the labourers; or $4\frac{1}{4}d.$

Cost of the Clothing of an Agricultural Labourer, his Wife, and Family (consisting of Five Children under 12 years), for One Year. Counties of Dublin and Kildare.

Articles of Clothing.	Price.	Remarks.
<i>Husband—</i>	£ s. d.	
Coat (frieze, value 1l. will } 2 last years }	- 10 -	The men generally provide their clothing for the year out of the extra earnings during the harvest; when they are, in many cases, able to earn more than double the ordinary wages; also from the produce of fowls and a pig, and often from both.
Trousers	- 6 -	
Vest.....	- 4 -	
Shirts (two).....	- 4 -	
Hat (or cap)	- 4 -	
Shoes	- 6 -	
Stockings (3 pairs).....	- 2 -	
	1 16 -	
<i>Wife—</i>		
Shifts (two).....	- 2 -	
Frock	- 5 -	
Boots	- 4 6	
Neckerchief	- 1 6	
Shawl	- 2 6	
	- 15 -	
<i>Children—</i>		
Five under 12 years	1 10 -	The children seldom wear shoes till they are 6 or 7 years of age, and even to 15 years, some of them.
Total	4 1 -	

The succeeding table gives the particulars of the actual disbursements for the clothing of an agricultural labourer, in, and for the year 1860. This man resides in the parish of Inishmacsaint, county Donegal.

Articles of Clothing.	Price.	Remarks.
<i>Husband—</i>	£ s. d.	<i>Husband in use—</i>
Coat 24s., trousers 7s. 6d., vest 5s., shirt 2s., shoes 8s., stockings 1s.....	2 7 6	Flannel vest, cap and handker- chief in use for 8 months.
<i>Wife—</i>		<i>Wife—</i>
Gown 5s. 6d., petticoat 5s. 4d., shift 1s. 10d., handker- chief and cap 2s. 6d.	- 15 2	Stockings and aprons in use for 14 months.
<i>Child No. 1—</i>		<i>Child—</i>
Frock and underclothes	- 15 -	Shoes and socks for 12 months, occasionally in use.
<i>Child No. 2—</i>		
Frock 4s. 6d., petticoat 5s.	- 9 6	
<i>Child No. 3—</i>		
Petticoat and shift	- 7 6	
	4 14 8	

Note.—There are not many of what may be called an agricultural labourer’s class in constant employment in this country. The labourer here is dependant on occasional work given him weekly or monthly, and his garments are not costly; sometime one-half the year without wearing a coat which, when new would last him three years. John Gilvanny is a fair specimen of the class, and is the only one from whom I could obtain the required information: in fact, scarcely a labourer in this country could tell what clothes cost him. As for females, those who can afford to buy shoes, wear them not more than six hours in the week.

In the workhouse of the Kilmallock Union (Tipperary and Limerick), the materials for clothing the inmates are made up in the house. The cost of the material for each garment, is set out in Table XIX (Appendix).

The materials for the clothes of

	£ s. d.
A man cost	1 6 -
„ woman	1 1 1½
„ boy under 15.....	- 19 -
„ girl „	- 14 2
	4 - 3½

In the Clifden workhouse, the clothes for

	£ s. d.
A man cost	1 - 2
„ woman	- 12 5
„ boy 12 years old.....	- 8 6
„ girl „	- 10 4
	3 11 5

In the Ballyshannon workhouse, the year's clothing for

	£	s.	d.
A man costs	1	—	9
„ woman „	—	15	9
„ child's „	—	12	—
	<hr/>		
	2	8	6
	<hr/>		

The rent which the Irish labourer pays for his cabin or for his cottage, varies from 25*s.* to 60*s.* a-year, according to the extent of ground which may be attached to it.

The witnesses examined before the Lands Commission, in many instances stated the cottage rents then current. Though that Commission sat but seventeen years ago, the condition of Ireland has so materially improved since, that equivalent advantages of house shelter and arable ground, may be no longer attainable for the same rent. The information was given on such good authority, that it seemed desirable to abstract and tabulate it for this paper (Table XX Appendix).

The lowest rents named were 15*s.* and 20*s.* a-year; but, in most places, these payments would only secure mere cabins without garden or other ground. The rent most frequently mentioned was 40*s.*; half-an-acre of land, sometimes [more, would be included at this figure. A common rental was 52*s.*; paid by the cottier by performing a certain quantity of work for the farmer as proprietor. Rents at 60*s.* and 80*s.*, were not unfrequent; but at these rates a greater area of cultivation was secured, with occasional additions of “cow's grass.”

The next table is added as exhibiting upon the best authority, some statistics bearing on the condition of the labouring poor of Ireland, twenty years ago. The Land Commission employed the “mud cabin” ratio, as the most exact exponent of the misery of the peasantry in different parts of the country:—

Ireland.	Number of Farms.	1 to 5 Acres.	5 to 15 Acres.	15 to 30 Acres.	Over 30 Acres.	Number and Ratio of Mud Cabins of One Room and no Window.	
	No.	Pr. cnt.	Pr. cnt.	Pr. cnt.	Pr. cnt.	No.	Pr. cnt.
Ulster	234,499	43	42	11	4	125,898	30·4
Connaught	155,204	64	29	4	3	121,346	49·9
Leinster	133,220	37	34	16	13	79,921	26·1
Munster	162,386	35	38	17	10	164,113	45·0
Average of Ireland	685,309	45	37	11	7	491,278	37·0

Note.—Census of 1841. “Digest of Lands Commission.”

The figures in the two last columns have been abstracted from

the Irish census of 1841; at that time more than *a third* of the dwelling places of Ireland's denizens, were *one-roomed, windowless, mud cabins!*

THE UNITED KINGDOM.

XI.—General Recapitulation.

It will be useful, in conclusion, to bring some of the principal results of the investigation pursued in this, and the former paper upon the rate of agricultural wages, into juxtaposition.

1st. The average weekly rate of wages to agricultural labourers in the United Kingdom in the half-year ended at Christmas, 1860, was, for:—

	Men.		Women.		Children under 16.		Men's Weekly Earnings by Task Work.	
	s.	d.	s.	d.	s.	d.	s.	d.
England and Wales	11	6½	4	8¼	3	7¼	14	9½
Scotland	12	11½	5	7	4	3¾	14	6¾
Ireland.....	7	1¼	3	11	2	11½	9	4¾

2nd. The rise in the weekly wages of the men appears to have been as hereafter stated:—

	Dates.	Interval in Years.	Weekly Increase.		Increase per Cent.
England and Wales {	1824-37	13	s.	d.	
	'37-60	23	2	8	28·7
			1	3	12·1
Scotland..... {	1835 } -60	20	3	9½	49·5
	'44 }				
Ireland	1844-60	16	2	7	57·4

3rd. The average weekly cost per head, for man, woman, or child, for food and clothing, appears to have been in 1860 for—

	Food.		Clothing.	Total.	
	s.	d.	d.	s.	d.
England and Wales.....	1	9	3½	2	0½
Scotland	1	4	6¼	1	10½
Ireland.....	1	1	2¾	1	3¾

4th. The average cost per week for food and clothing, supplied to the in-door paupers of both sexes, at all ages, was :—

In the Workhouses of	Food.	Clothing.	Total.
	<i>s. d.</i>	<i>d.</i>	<i>s. d.</i>
England and Wales	2 10	3½	3 1
Scotland	2 7	4	2 11
Ireland	2 2½	4¼	2 6¾

It is to be observed that there is a much nearer approach to equality of charge in this table, than in the preceding one.

5th. The payments of the weekly wages of the men in 1860 varied in their range, thus—

	The Lowest Paid County.	The Highest Paid County.
	<i>s. d.</i>	<i>s. d.</i>
England and Wales	9 —	15 —
Scotland	11 —	15 —
Ireland.....	6 —	8 9

If Shetland were included, the *minimum* in Scotland would be 8*s.* In Ireland there are several counties at 6*s.*; including Roscommon, the *maximum* would be 10*s.* 2*d.* These figures are excluded from the table because, for reasons already stated, both the rates appear exceptional.

6th. How far the poor rates may have supplemented the general wages fund of each country, may be inferred from the subsequent comparison of the expenditure for relief to the poor, made on an average of the *ten* years ended in 1860:—

	Rate per Head on Population.
	<i>s. d.</i>
England and Wales	5 9½
Scotland	3 11¼
Ireland	2 1¾

APPENDIX—SCOTLAND.

(I.)—Statement of so much of the Earnings of Agricultural Labourers in Scotland, as consisted of the WEEKLY MONEY WAGES to Men, Women, and Children, and the Task Work Payments to Men, during the Half Year ended 31st December, 1860.

Number of Counties making Returns.	Divisions.	Weekly Wages.							
		Men.				Women.			
		Range.		Average.		Range.		Average.	
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	I. NORTHERN GROUP:								
4	1. Northern	8 - @	12 -	10 7½		4 2 @	6 -	4 9½	
2	2. North-Western....	11 6 „	13 -	12 3		4 - „	6 6	5 3	
3	3. North-Eastern ...	14 - „	14 6	14 4		5 - „	6 4	5 5	
		8 - „	14 6	12 2¾		4 - „	6 6	5 1¼	
	II. MIDLAND GROUP:								
5	4. East Midland	12 - @	13 6	12 7		4 6 @	5 6	4 11	
4	5. West Midland	12 - „	15 -	13 10½		6 - „	7 6	6 6	
		12 - „	15 -	13 2		4 6 „	7 6	5 7¼	
	III. SOUTHERN GROUP:								
3	6. South-Western....	12 - @	14 6	13 2		6 - @	7 6	6 10	
6	7. South-Eastern	13 - „	15 -	13 9¼		5 - „	6 -	5 10	
2	8. Southern	11 - „	12 -	11 9		5 - „	6 -	5 6	
		11 - „	15 -	13 2		5 - „	7 6	5 11½	
29	Scotland	8 - @	15 -	12 11½		4 - @	7 6	5 7	

Number of Counties making Returns.	Divisions.	Weekly Wages.			Weekly Earnings at Task Work.		
		Children under 16 Years.			Men.		
		Range.		Average.	Range.		Average.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	I. NORTHERN GROUP:						
4	1. Northern	3 - @	6 -	3 10	12 - @	13 -	12 6
2	2. North-Western....	2 9 „	4 -	3 4½	13 - „	13 6	13 3
3	3. North-Eastern ...	4 - „	5 -	4 7	14 - „	14 6	14 4
		2 9 „	6 -	4 0	12 - „	14 6	13 6
	II. MIDLAND GROUP:						
5	4. East Midland	3 6 @	4 9	3 11	13 6 @	15 -	13 10½
4	5. West Midland	3 - „	5 -	4 1½	15 - „	17 -	15 8
		3 - „	5 -	4 ½	13 6 „	17 -	14 7¾
	III. SOUTHERN GROUP:						
3	6. South-Western....	2 - @	6 6	4 4	12 - @	15 -	13 6
6	7. South-Eastern	4 - „	6 -	4 11	15 - „	18 -	16 8
2	8. Southern	4 - „	6 -	5 -	12 - „	13 6	12 9
		2 - „	6 6	4 9½	12 - „	18 -	15 3
29	Scotland	2 - @	6 6	4 3¾	12 - @	18 -	14 6¾

Note.—This return is deficient in respect of the wages in four counties, namely, Banff and Aberdeen in the north-eastern, and Roxborough and Dumfries in the southern division.

(II.)—*Statement of the WEEKLY MONEY WAGES of Agricultural Labourers in the counties of Scotland; of the Weekly Earnings by Task Work of Men; of the Harvest Weekly Wages of Men, Women, and Children, during the Half Year ended December, 1860.*

Divisions and Counties.	Weekly Wages.			Weekly Earnings by Task Work.	Harvest Weekly Wages.		
	Men.	Women.	Children under 16.	Men.	Men.	Women.	Children under 16.
I. NORTHERN.	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1. Shetland	8 —	4 6	3 —	none	—	—	—
2. Orkney	12 —	6 —	6 —	12 —	—	—	—
3. Caithness	11 6	4 6	3 —	none	—	—	—
4. Sutherland	11 —	4 2	3 5	13 —	15 —	9 —	9 —
II. NORTH-WESTERN.							
5. Ross & Cromarty	11 6	4 —	2 9	13 —	14 —	—	—
6. Inverness	13 —	6 6	4 —	13 6	—	—	—
III. NORTH-EASTERN.							
7. Nairn	14 —	5 —	4 —	14 —	—	—	—
8. Elgin	14 6	5 —	4 8	14 6	—	—	—
9. Banff			no	return			
10. Aberdeen			no	return			
11. Kincardine	14 6	6 4	5 —	14 6	19 —	13 —	—
IV. EAST MIDLAND.							
12. Forfar	13 6	5 6	4 9	13 6	25 —	—	—
13. Perth	12 —	5 —	4 —	15 —	26 6	—	—
14. Fife	12 —	4 6	3 6	13 6	15 —	12 —	—
15. Kinross	12 —	4 6	3 6	13 6	15 —	8 6	—
16. Clackmannan	13 6	5 —	—	—	19 —	12 —	—
V. WEST MIDLAND.							
17. Stirling	15 —	6 —	4 6	15 —	21 —	13 6	—
18. Dumbarton	15 —	7 6	5 —	17 —	24 —	12 —	—
19. Argyll	12 —	6 6	4 —	15 —	18 —	—	—
20. Bute	13 6*	6 —	3 —	—	15 —	—	—
VI. SOUTH-WESTERN.							
21. Renfrew	12 —	7 6	6 6	12 —	21 —	—	—
22. Ayr	13 —	6 —	4 6	—	21 —	—	—
23. Lanark	14 6	6 —	2 —	15 —	18 —	12 —	—
VII. SOUTH-EASTERN.							
24. Linlithgow	13 —	6 —	6 —	16 6	—	—	—
25. Edinburgh	14 —	6 —	4 —	18 —	—	12 —	—
26. Haddington	13 6	6 —	4 —	16 —	—	—	—
27. Berwick	15 —	5 —	5 —	15 —	—	—	—
28. Peebles	13 —	6 —	6 —	18 —	—	9 —	—
29. Selkirk	14 2	6 —	4 7	16 6	22 6	15 —	—
VIII. SOUTHERN.							
30. Roxborough			no	return			
31. Dumfries			no	return			
32. Kirkcudbright	12 —†	6 —	6 —	12 —	16 —	8 —	—
33. Wigtown	11 6	5 —	4 —	13 6	—	—	—

* Inclusive of the value of the food allowed, estimated at 3*s.* 6*d.* per week.

† When food is given, the wages are about 4*s.* less.

Note.—In Elgin the wages with food and lodging in addition, are 7*s.* 9*d.*, 2*s.* 10*d.*, and 2*s.* 8*d.* for men, women, and children respectively. A similar remark is applicable to Kincardine, where the wages, exclusive of the value of the food given, are 10*s.* 6*d.*, 4*s.*, and 2*s.* 6*d.*

(III.)—*Statement of the WEEKLY RATE of MONEY WAGES Paid to Agricultural Day Labourers in Seventeen Counties in Scotland, in the Years 1835 to 1844, as compared with the Rate paid in 1860.*

N.B.—These labourers receive no benefit in addition to their money wages.

Divisions and Counties.	Sex of Labourer.	Date of Return.	Weekly Wages.	Date of Return.	Weekly Wages.	Increase in 1860.
I. NORTHERN GROUP:			<i>s. d.</i>		<i>s. d.</i>	<i>s. d.</i>
1. Shetland	Man	1841	6 6	1860	8 —	1 6
2. Orkney	Man	'41-42	6 10	„	12 —	5 2
	Woman	„	3 —	„	6 —	3 —
3. Caithness	Man	'40	8 9	„	11 6	2 9
5. Ross and Cromarty	Man	'35-36	7 8	„	11 6	3 10
	Woman	„	3 —	„	4 —	1 —
6. Inverness	Man	'35-41	8 6	„	13 —	4 6
	Woman	„	3 6	„	6 6	3 —
8. Elgin	Man	'35-42	9 —	„	14 6	5 6
	Woman	„	3 4	„	5 —	1 8
11. Kincardine	Man	'36-42	9 6	„	14 6	5 —
	Woman	„	4 —	„	6 4	2 4
II. MIDLAND GROUP:						
12. Forfar	Man	1833-42	9 —	1860	13 6	4 6
	Woman	„	4 —	„	5 6	1 6
13. Perth	Man	'37-43	9 —	„	12 —	3 —
	Woman	„	4 —	„	5 —	1 —
14. Fife	Man	'34-38	9 —	„	12 —	3 —
16. Clackmannan {	Man	—	11 1	„	13 6	2 5
	Woman	—	3 3	„	5 —	1 9
18. Dumbarton	Man	'39	10 8	„	15 —	4 4
III. SOUTHERN GROUP:						
23. Lanark	Man	1834-40	10 6	1860	14 6	4 —
25. Edinburgh	Man	'39-45	9 9	„	14 —	4 3
28. Peebles	Man	'34	9 6	„	13 —	3 6
32. Kirkcudbright	Man	'43-44	8 6	„	12 —	3 6
	Man	'38-39	8 9	„	11 6	2 9

Note.—The wages of the earlier years are abstracted from the “New Statistical Survey of Scotland;” those of 1860 from House of Commons Paper, No. 244, Sess. 1861.

(IV.)—*Statement of the YEARLY RATE of MONEY WAGES Paid to Farm Servants in Thirteen Counties of Scotland, in the Years 1835 to 1843, as compared with the Rate paid in 1860.*

N.B.—These labourers have, in addition to their wages, board and lodging provided by the farmers; or an equivalent benefit in the shape of rent, food, and firing.

Divisions and Counties.	Description of Labourer.	Date of Return.	Yearly Wages.	Date of Return.	Yearly Wages.	Increase in 1860.
			£ s. d.		£ s.	£ s. d.
I. NORTHERN GROUP :						
2. Orkney	Ploughman	1841-42	7 3 6	1860	12 -	4 16 6
4. Sutherland {	Farm labourer (man)	} '34	7 - -	}	18 -	11 - -
	„ (woman)		3 6 8		10 15	6 8 4
5. Ross and Cromarty*	Ploughman	'35-36	7 - -	„	11 -	4 - -
6. Inverness	Farm labourer (man)	} '35-41	9 6 3	}	17 -	7 13 9
	„ (woman)		3 9 -		6 10	3 1 -
11. Kincardine {	„ (man)	} '36-42	12 - -	}	27 6	15 6 -
	„ (woman)		4 5 6		10 8	5 2 6
II. MIDLAND GROUP :						
12. Forfar	Farm labourer (man)	} 1833-42	11 5 -	}	21 3	9 18 -
	„ (woman)		5 14 6		9 10	4 5 6
13. Perth	Ploughman	'37-43	13 4 6	„	18 4	4 19 6
14. Fife	„ (without food)	} '36-38	22 10 -	}	36 8	13 18 -
	„ (with food)		10 16 -		18 10	7 14 -
18. Dumbarton	„ (without food)	'39	21 - -	„	22 -	1 - -
19. Argyll	„	} '43	12 10 -	}	18 -	5 10 -
	Shepherd		11 2 6		20 -	8 17 6
III. SOUTHERN GROUP :						
21. Renfrew	Ploughman	} 1837-38	19 - -	}	23 -	4 - -
	Dairymaid		8 10 -		10 10	2 - -
23. Lanark	Ploughman	} '34-40	14 4 -	}	21 -	6 14 -
	Dairymaid		8 5 -		14 -	5 15 -
32. Kirkcudbright {	Farm servant (man) (without food)	}	—	}	31 4	6 4 -
	Farm servant (man) (with food)		25 - -		20 16	9 6 -

* Ross and Cromarty. In two parishes of this county, the entire cost, including board and lodging of a male farm servant for a year, was then stated to be 20*l.*, the cost in 1860 was 28*l.* 12*s.*

Note.—The wages of the earlier years are abstracted from the new “Statistical Survey of Scotland,” those of 1860 from House of Commons Paper, No. 244, Sess. 1861.

(V.)—*Statement of the YEARLY ALLOWANCES made in several Counties to those Male Farm Labourers who are Paid partly in Money and partly in kind. Year 1860.*

Articles of Food.	Orkney.	Sutherland.	Ross.	Inverness.
Oatmeal.....	840 lbs.	910 lbs.	980 lbs.	936 lbs.
Potatoes.....	10 barrels	280 „	—	1,456 „
Milk	182½ galls.	43 galls.	{ Quantity not stated }	137 galls.

Articles of Food.	Elgin.	Fife.	Stirling.	Linlithgow.	Edinburgh.*
Oatmeal.....	936 lbs.	910 lbs.	910 lbs.	910 lbs.	910 lbs.
Potatoes.....	520 „	746 „	—	672 „	490 „
Milk	—	182½ galls.	—	—	—

* House of Commons Paper, No. 244, Agricultural Labourers (Scotland).
Sess. 1861.

(VI.)—*Cost of Food, Firing, Clothing, and Rent, in the Parish of Arbroath, Forfarshire, in the years named.*

Articles of Consumption.	1812.	1819.	1826.	1833.
<i>Food, &c.—</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Wheaten bread, per quartern	1 6	— 11	— 10	— 8
Oatmeal, per peck of 8 lbs. Dutch*....	—	1 4	1 4	1 —
Potatoes, per stone of 16 lbs. „	—	— 4½	— 4½	— 4
Barley, per lb. avoirdupois	—	— 2½	— 2½	— 2
Beef, „	— 8	— 7	— 6	— 5
Mutton, „	— 8	— 7	— 6	— 5½
Cheese, „	—	— 4	— 4	— 4
Butter, „	—	— 10½	— 10	— 8
Beer, per 18 gallons	10 —	10 —	10 —	9 —
Soap, per lb.	—	— 9½	— 7	— 6½
Candles, „	—	— 11	— 7	— 6
Brown sugar, per lb.	—	— 10½	— 8½	— 7
Tea, per lb.	—	7 —	6 6	5 6
Salt, „	—	— 2	— 5½	— 4½
Coals, per imperial barrel.....	1 3½	1 3½	1 2	1 1
<i>Clothing—</i>				
Hats, each	7 —	6 6	6 —	5 6
Men's shoes, per pair	10 —	10 —	10 —	9 6
Women's „	6 6	6 6	6 6	6 —
Coarse calico, per yard	1 —	1 1	— 7	— 6
<i>House Rent—</i>				
Per year.....	60 —	55 —	55 —	55 —

* The Dutch pound is equal to 20 oz. avoirdupois.

Note.—“ New Statistical Account of Scotland.”

VII.—*Statement of the PRICES of FOOD in the undernamed Parishes of Scotland for the Years respectively denoted.*

Articles of Food.	Inverness-shire.			Ross and Cromarty.		Kincardineshire.						
	Inverness, 1835.			Glenshiel, 1836.		Bewie, 1837.			Fordoun, 1837.		Fettercairn, 1837.	
	d.	s.	d.	s.	d.	d.	s.	d.	s.	d.	s.	d.
Beef, per lb. (imperial)	—		4½	—		4 to —	5½	{	—	5	—	5¾
Mutton „ „	—		4	—					—	5	—	5¾
Veal „ „	—		3¾	—					—	6	—	5¾
Pork „ „	—		4	—					—	4	—	
Haddocks, each	—		2	—		—		—	—		—	
Cod „ „	1 to 1		—	—		—		—	—		—	
Fowls, per pair	1		9	—		—		1	1½		2	6
Chickens „ „	—		10½	—		—		—	11		1	1½
Potatoes, per cwt.	2		—	—		—		—	—		—	
Eggs, per dozen	—		—	—		—	5½	—	6		—	5
Cheese, per stone 24 lbs.	—		—	7	6	7	—	—	—		7	6
Butter, per lb.	—		—	—	8	—	7½	—	7		—	9
Oatmeal, per boll of 140 } lbs.	—		—	18	—	—	—	—	—		20	—

Articles of Food.	Orkney.	Elginshire.	Aberdeenshire.		Dumfries.
	Sandwich, 1841.	Knockando, 1835.	Drumlade, 1840.	Crimond, 1842.	Keir, 1836.
	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>d.</i> <i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
Beef, per lb. (imperial)	— 2	—	— 5¼	— 4½	—
Mutton „ „	— 2	—	— 5¼	— 4½	—
Cod, each.....	—	—	—	4 to — 6	—
Fowls, per pair	1 4	1 2	1 10	2 —	—
Chickens „ „	—	— 7	—	—	—
Potatoes, per cwt.	{ 3 — } per barrel	—	—	—	1 —
Eggs, per doz.	— 3	— 4½	— 3¾	— 5	—
Cheese, per stone 24 lbs.	—	8 —	—	6 6	3 6
Butter, per lb.	— 6	— 9	{ — 5½ } fresh	— 7¼	— 8
Oatmeal, per boll of 140 } lbs.	—	—	—	{ 1 3 } pr. peck	—
Milk, skimmed, per Scotch } pint	—	— 1	—	— {	—
Milk, sweet, per Scotch pint	—	— 2	—	—	—

Note.—Abstracted from the “New Statistical Account of Scotland,” *vide* the reports on the parishes named above.

(VIII.)—*Shop Prices of Food purchased by Agricultural Labourers in Three Counties of Scotland, in the Half Year ended 31st December, 1860.*

No. 1.

Shop Prices paid by Agricultural Labourers for Food, Soap, and Candles, in the parishes of the Orkney Islands, for the Half Year ended Christmas, 1860, or thereabouts.

Articles of Food, &c.	Price.	Remarks.
Bread 4 lbs.	s. d. — 6	Second quality
Flour 7 „	1 —	„
Oatmeal 14 „	1 8	For 14 lbs. of <i>black</i> ; white, 1s. 9d. per 14 lbs.
Barley 1 „	— 1½	{ This is for pot or pearl barley. Beremeal is sold at 1s. 3d. per 14 lbs., and barleymeal at the same price
Bacon per lb.	— 6	Very fluctuating
Butcher's meat „	{ — 5 — 6 }	Generally not above 5d. to the labouring classes
Cheese „	— 3	{ This is skim milk cheese, the manufacture of the county; other kinds run as high as 6d.
Butter „	— 8	Fluctuating, seldom higher
Tea „	4 —	
Sugar „	— 5	
Soap..... „	— 5	
Candles „	— 8	
Potatoes	{ 3 — 4 —	{ Sometimes as high as 5s. (for 13 stones 5 lbs.), but these and all sorts of vegetables are seldom purchased, indeed more frequently are sold by labourers in Orkney
Vegetables	—	
Fish, salt and fresh.....	1 8	{ This for salt fish, per 14 lbs.; fresh fish there is hardly a regular price for, as any one may catch for himself of an evening enough for a family
Coals, &c., &c., &c.	17 —	{ Per ton. Peats are most used by labourers, and are cut, dried, and carried by themselves

(VIII.)—*Shop Prices of Food, &c.—Contd.*

No. 2.

Shop Prices paid by Agricultural Labourers for Food, Soap, and Candles, in the parish of Dunkeld, Perthshire, for the Half Year ended Christmas, 1860, or thereabouts.

Articles of Food, &c.	Price.		Remarks.
	s.	d.	
Bread, per 4 lbs.	—	7½	Per lb. Very good quality
Flour, „ 7 „	1	9	Per peck. Very little used
Oatmeal	1	1	„
Barley	2	— to 2	Per stone 14 lbs.
Bacon, per lb.	—	—	Not used in this shape
Butcher's meat	—	8 to — 9	{ Per lb. Very little used except at new year. Almost every family have a pig, which they use when fattened
Cheese	—	3½ „ — 6	Per lb.
Butter	1	— „ 1	2 „
Tea	3	4 „ 4	— „
Sugar	—	5 „ — 6	„
Soap	—	4½ „ — 5	„
Candles	—	7	— „
Potatoes	1	— „ 1	2 Per peck
Vegetables	—	—	{ Very few used, except what people rear for themselves
Fish, fresh and salt	—	—	Very few seen in this quarter
Coals	1	— to 1	2 { Per cwt. Ought to be bought a great deal cheaper

(VIII.)—*Shop Prices of Food, &c.—Contd.*

No. 3.

Shop Prices paid by Agricultural Labourers for Food, Soap, and Candles, in the parish of Campbeltown, in the Half Year ended Christmas, 1860, or thereabouts.

Quality (per pound or per pint, &c.) of Food.	Price.	Quality (per pound or per pint, &c.) of Food.	Price.
	s. d.		s. d.
Bread, fine..... 4 lbs.	— 7	Sugar	5d. and 6d.
American flour 7 „	1 4½	Potatoes, per stone 14 lbs.	— 7
Fine overhead flour ... 7 „	1 2½	Vegetables—	
„ second „ ... 7 „	1 —½	Turnips ... per stone	— 3
„ oatmeal 7 „	— 11½	Carrots ... „	— 6
Pearl barley 7 „	1 5	Fish, fresh per lb.	— 2
Second „ 7 „	1 —	„ salt, from.....	2d. to 3d.
Bacon..... 1 lb.	6d. to 7d.	Soap	{ — 4½
Butcher's meat 1 „	6d. „ 8d.	Candles, dip per lb.	— 8
Cheese, common 1 „	— 3	„ mould „	— 10
„ Dunlop..... 1 „	— 7	„ composite „	1 —
„ Cheddar 1 „	— 8	Gas..... per 1,000 feet	6 6
Butter	1 1	Coals..... per ton, from	11s. to 12s.
Tea	{ 3 10		
	4 —		
	4 4		

(IX.)—*Shop Prices of Articles of Clothing purchased by Agricultural Labourers in Three Counties of Scotland, in the Half Year ended 31st December, 1860.*

No. 1.

Shop Prices paid by Agricultural Labourers for Articles of Clothing in the parishes of the Orkney Islnds, in the Half Year ended Christmas, 1860, or thereabouts.

Articles of Clothing.		Price.		
		£	s.	d.
<i>Husband's—</i>				
Moleskin trousers	per pair	—	5	—
„ jackets	„	—	6	—
„ vests	each	—	3	9
Cloth coat	„	—	15	—
„ trousers	„	—	10	—
„ vests	„	—	5	—
Serge drawers	„	—	3	—
Striped cotton shirt	„	—	2	—
Socks	per pair	—	—	10
Boots, gutta percha soles	„	—	5	6
		2	16	1
<i>Wife's—</i>				
Print dress		—	3	6
Worsted „		—	5	—
„ shawl		—	4	—
Cotton shift		—	—	10
„ petticoat		—	1	6
Flannel „		—	3	6
Print apron		—	—	4
Leather shoes, gutta percha soles	per pair	—	3	6
Stockings	„	—	—	6
		1	2	8
<i>Three Girls'—</i>				
Three print dresses		—	6	—
„ worsted „		—	8	—
„ „ shawls		—	5	—
„ cotton shifts		—	1	6
„ „ petticoats		—	2	6
„ flannel „		—	6	—
„ print aprons		—	1	—
„ pairs stockings, at 4 <i>d.</i>		—	1	—
„ „ shoes, at 3 <i>s.</i> 6 <i>d.</i>		—	10	6
		2	1	6
<i>Two Boys'—</i>				
Two pairs moleskin trousers		—	6	—
„ moleskin jackets		—	8	—
„ „ vests		—	4	6
„ suits cloth clothes for Sunday, at 10 <i>s.</i> per suit		1	—	—
„ stripe shirts		—	2	6
„ pairs drawers		—	4	—
„ „ stockings, at 9 <i>d.</i>		—	1	6
„ „ shoes, at 4 <i>s.</i>		—	8	—
		2	14	6
		8	14	9

Note.—Great part of the labouring population in Orkney manufacture their own clothing, that is to say, under-clothing, and often also their outer-clothing for week-day wear, purchasing the wool, and they merely go to the shop for Sunday dresses.

(IX.)—*Shop Prices of Articles of Clothing, &c.—Contd.*

No. 2.

Shop Prices paid by Agricultural Labourers for Articles of Clothing, in the parish of Dunkeld, Perthshire, in the Half Year ended Christmas, 1860, or thereabouts.

Articles of Clothing.	Price.		
	£	s.	d.
<i>Husband's clothes—</i>			
Tweed suit	2	10	—
Corduroy trousers	—	8	—
Moleskin vest	—	9	6
Drawers	—	4	6
Bonnet or cap	—	3	6
Two pairs stockings	—	4	4
„ pocket handkerchiefs	—	—	10
„ striped shirts	—	5	—
Neckerchief for Sunday	—	2	6
Wearing „	—	1	—
	4	9	2
<i>Wife's clothes—</i>			
Winter dress	—	16	—
Flannel petticoat	—	5	—
Duffil „	—	7	—
Cotton „	—	3	—
Two cotton shifts	—	2	—
„ pair of stockings	—	2	6
Bonnet and ribbons	—	7	6
Shawl	—	10	—
Aprons, 2s. 6d.; caps, 1s. 6d.	—	4	—
Stays	—	3	6
	3	—	6
<i>Two Boys' clothes—</i>			
Two suits at 15s.	1	10	—
Worsted for stockings	—	2	6
Four cotton shirts	—	4	—
Two neckerchiefs at 8d.	—	1	4
„ pocket handkerchiefs	—	—	2
	1	18	—
<i>Three Girls' clothes—</i>			
Three dresses	1	—	—
Worsted for stockings	—	3	—
Three bonnets or hats	—	7	6
„ petticoats	—	6	—
„ cotton shifts	—	2	6
Aprons or pinafores	—	3	—
	2	2	—
	11	9	8

Note.—I have given what a family in the above station is in the habit of getting in this quarter annually. Here they are in the habit of supplying themselves with all they want for the year about Martinmas. It just costs them from 11*l.* to 12*l.* annually for clothes for a family such as here stated.

(IX.)—*Shop Prices of Articles of Clothing, &c.—Contd.*

No. 3.

Shop Prices paid by Agricultural Labourers for Articles of Clothing in the parish of Biggar, Lanarkshire, for the Half Year ended Christmas, 1860, or thereabouts.

Articles of Clothing.	Price.		
<i>Husband's clothes—</i>	£	s.	d.
Tweed suit	2	6	—
Mole trousers, 8s.; sleeved vest, 10s. 6d.	—	18	6
Plaiding drawers	—	3	6
Cloth cap	—	2	6
Five cuts yarn, at 8d.	—	3	4
Two pocket handkerchiefs	—	—	10
„ striped shirts	—	5	—
Cravat for Sunday	—	2	—
Wearing ditto	—	1	—
	4	2	8
<i>Wife's clothes—</i>			
Wincey dress	—	12	6
Print „	—	3	6
Flannel petticoat	—	4	—
Drugget „	—	5	6
Five yards cotton for shift	—	1	8
„ cuts yarn	—	3	4
Pair fine hose	—	1	3
Bonnet and ribbons	—	7	—
Wool plaid, 17s.; stays, 3s. 6d.	1	—	6
Aprons, 1s. 6d.; caps, 1s. 6d.	—	3	—
	3	2	3
<i>Three Girls' clothes—</i>			
Three dresses, at 5s. 3d.	—	15	9
Yarn for stockings	—	2	8
Three hats	—	7	—
„ petticoats	—	6	—
Six yards cotton, at 3½d.	—	1	9
Aprons or pinafores	—	3	—
	1	16	2
<i>Two Boys' clothes—</i>			
Two suits of cord or moleskin, at 15s.	1	10	—
Yarn for stockings	—	2	8
Cotton for shirts	—	3	4
Two neckerchiefs at 6d.	—	1	—
„ Balmoral bonnets at 1s.	—	2	—
	1	19	—
	11	—	1

Note.—The statement above is for that which might be got during a year by a family such as is here mentioned; but, it will not do to suppose that the yearly expenditure would average that amount, as a tweed suit generally serves longer than twelve months, and a woman's wool plaid for two or three years.

(X.)—*Statement of the Average Rentals and of the Number of Families occupying thereat in certain Parishes of the Western Highlands and Islands of Scotland in 1851.*

Counties.	Parishes.	Rentals.	Number of Families at the Average Rentals stated.
		£ s. d.	
Orkney	Mainland	3 17 —	{ 2,202 families. Depend more on fishing than their crofts
Ross and Cromarty }	Lewis*	2 12 2	{ 2,628 families of crofters. The croft does not provide for the average family more than six months' food
Inverness.....	Harries	4 2 5½	348 families. Ditto
„	Skye	4 4 1	{ 1,900 families. Does not provide six months' food for an average family
„	North Uist	4 14 6¾	{ 217 families. Food for not more than seven months
„ {	South Uist and Barea	4 2 11	973 families
Argyleshire	Kilfinichen.....	4 16 7	{ 160 families. Provides food for six months
„	Tyree	4 — —	700 families

* There is about 10,000 acres of arable land in Lewis; average extent of land in tillage upon each croft is about three acres, and hill grazing for one cow and five sheep for every pound of rent.—Sir John McNeill, p. 19.

(XI.)—*Statement of Rents Paid by the smaller Crofters and Cottars Paying less than £5 Yearly, in the Western Highlands and Islands of Scotland in 1851.*

Parishes.	Number of Tenants.	Aggregate Rental.	Average Rent.
		£ s. d.	
Kilfinichen and Kilvickeon.....	106	377 6 5	} £3 say
Kilmain	136	505 13 11	
Snizort.....	181	521 9 —	
Portree.....	204	631 14 —	
Strath	209	515 2 5	
Sleat.....	181	554 9 8	
Glenelg	93	279 12 —	
Lochealsh	221	501 17 3	
Kintail.....	115	304 6 11	
Applecross	197	557 7 2	
Lochbroom	390	1,096 — 10	
Stornoway	642	1,996 — —	
Uig Island of Lewis	337	1,104 9 6	
North Uist	149	559 16 1	
Tyree	223	581 13 2	
	3,384	10,086 18 4	—

Note. Appendix to Sir John McNeill's "Report on the Destitution in the "Western Highlands and Islands," 1851.

(XII.)—*Statement of the POPULATION Aged 20 Years and upwards, occupied in Agriculture, in each Division of SCOTLAND in 1851; and of the Ratio per Cent. of the Agricultural to the Total Adult Population.*

SCOTLAND. — Divisions and Subdivisions.	1 Population in 1851.	2 Number of Persons Aged 20 and upwards.	3 Number at those Ages occupied in Agriculture.	4 Ratio per Cent. of Cols. 3 to 2.
I. NORTHERN GROUP—	No.	No.	No.	Per cent.
1. Northern	127,035	70,632	21,089	29·9
2. North-Western ...	179,207	99,632	38,550	38·7
3. North-Eastern ...	349,716	189,424	59,915	31·6
Total	655,958	359,688	119,554	33·2
II. MIDLAND GROUP—				
4. East Midland	515,345	279,507	42,488	15·2
5. West Midland ...	237,246	124,885	26,799	21·4
Total	752,591	404,392	69,287	17·1
III. SOUTHERN GROUP—				
6. South-Western ...	881,118	468,370	37,450	8·0
7. South-Eastern ...	382,800	213,337	26,757	12·5
8. Southern	216,275	114,265	31,858	27·9
Total	1,480,193	795,972	96,065	12·1
Total of Scotland ...	2,888,742	1,560,052	284,906	18·2

* *Note.*—The three divisions have reference to the text of the preceding paper; the subdivisions so designated here, are the divisions of the census of 1861. The adult persons employed in agriculture, are tabulated from the occupations, census of 1851, and the ratios computed on the results. See remarks upon the agricultural group of industries, in the Paper on “English Agricultural Wages,” printed in the *Journal* for September, 1861.

IRELAND.

(XIII.)—*Statement of the WEEKLY MONEY WAGES of Agricultural Labourers in each Province of Ireland, and of the Weekly Earnings by Task Work of the Men, during the Half Year ended 31st December, 1860.*

Number of Counties making Returns.	IRELAND.	Weekly Wages.					
		Men.			Women.		
		Range.		Average.	Range.		Average.
		<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
9	I. Ulster	6 - @	8 4	7 3½	3 4 @	5 -	4 -
5	II. Connaught	6 - ,,	10 2	7 -¼	3 2 ,,	5 -	3 11
12	III. Leinster	5 7 ,,	8 9½	6 11½	3 - ,,	4 11	3 9
5*	IV. Munster	6 5½ ,,	8 4	7 2½	3 6 ,,	5 -	4 2¾
31	Ireland	5 7 ,,	10 2	7 1¼	3 - ,,	5 -	3 11

Number of Counties making Returns.	IRELAND.	Weekly Wages.			Weekly Earnings at Task Work.		
		Children under 16 Years.			Men.		
		Range.		Average.	Range.		Average.
		<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
9	I. Ulster	2 5 @	4 6	3 2	8 4½ @	10 -	9 3¾
5	II. Connaught	2 6½ ,,	4 6	3 1	8 - ,,	10 6	8 10½
12	III. Leinster	1 7 ,,	3 9	2 9	8 - ,,	11 -	9 8½
5*	IV. Munster	2 6 ,,	3 6	2 11½	7 8 ,,	10 -	9 2
31	Ireland	1 7 ,,	4 6	2 11½	7 8 ,,	11 -	9 4¾

* Though the wages are returned for the *six* counties of Munster, the averages given in this table only relate to *five* of the counties; because the wages, as stated, for Waterford county are the money payments to labourers, *in addition to the food given them*. This practice of paying partly in money and partly in food, does not, according to the return, seem to obtain in the other parts of Ireland. See Table XIV.

Note.—Data abstracted for this table from House of Commons Paper, No. 2, Agricultural Labourers (Ireland). Sess. 1862.

(XIV.)—Statement of the WEEKLY MONEY WAGES of Agricultural Labourers in each County of Ireland; of the Weekly Earnings by Task Work of Men; and of the Harvest Weekly Wages of Men, Women, and Children, during the Half Year ended 31st December, 1860.

IRELAND. Provinces and Counties.	Weekly Wages.			Weekly Earnings by Task Work.	Harvest Weekly Wages.		
	Men.	Women.	Children under 16.	Men.	Men.	Women.	Children under 16.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
I. ULSTER—							
1. Donegal	6 10	3 5	3 —	8 4½	12 6	6 —	—
2. Londonderry ...	7 6	5 —	4 6	9 6	15 —*	10 —*	7 —*
3. Antrim	8 4	4 6	3 4	10 —	12 7½	8 9	5 9
4. Tyrone	7 5	4 1	3 3½	9 6	12 —	—	—
5. Fermanagh	6 —	4 —	2 6	10 —	13 6	—	—
6. Monaghan	7 —	3 6	2 6	none	†	†	†
7. Armagh	7 5	4 3½	3 9	8 8	—	—	—
8. Down	8 —	4 —	3 —	10 —	12 —	9 —	4 —
9. Cavan	7 1	3 4	2 5	8 6	14 6	8 —	7 —
II. CONNAUGHT—							
10. Leitrim	6 4	3 2	2 7	8 8	—	—	—
11. Sligo	6 2½	3 10	2 9	8 —	13 6*	—	—
12. Mayo	6 —	4 —	3 —	none	8 6	5 6	3 9
13. Roscommon	10 2‡	5 —	4 6	10 6	—	—	—
14. Galway	6 5	3 6	2 6½	8 3½	9 —	4 —	3 —
III. LEINSTER—							
15. Longford	6 —	4 —	3 2	8 —	8 6*	5 8*	4 1*
16. Westmeath	7 —	4 —	3 —	11 —	12 —	9 —	4 6
17. Meath	7 9	4 —	3 6	10 6	14 6	7 11	4 —
18. Louth	6 —	4 —	3 —	8 6	13 —	9 —	3 6
19. King's County ...	7 8	3 3	2 2	8 —	9 —	6 —	3 6
20. Kildare	8 —	4 —	3 —	11 —	16 6	8 —	3 3
21. Dublin	8 9½	4 11	3 9	10 8	16 6	—	—
22. Queen's County .	6 —	3 —	2 —	9 —	13 6	6 6	3 —
23. Carlow	7 —	3 3	2 —	10 6	18 —	13 6	—
24. Wicklow	7 6	4 —	3 4	10 6	15 —	6 —	—
25. Kilkenny	5 7	3 —	1 7	none	12 —	—	—
26. Wexford	6 3	3 6	2 6	9 —	12 —	—	—
IV. MUNSTER—							
27. Clare	7 —	4 6	3 —	none	10 —*	—	—
28. Limerick	7 —	5 —	3 6	10 —	12 —*	—	—
29. Tipperary	6 5½	3 6	2 6	7 8	12 —	5 6	3 6
30. Kerry	8 4	4 —	2 6	none	12 —*	6 —*	—
31. Cork	7 4	4 2	3 4	9 9	11 3	8 3	4 3
32. Waterford	4 6*	2 9*	—	5 6	12 —*	6 —*	—

* With diet.

† Double for one month in spring and one month in harvest.

‡ In explanation of this high rate of wages, see House of Commons Paper.

Note.—Food furnished to male and female labourers, is full diet of potatoes or Indian meal, stirabout or milk; no other drink.

Food at harvest, where given in addition to the money wages, usually consists of two or three meals, with, in some cases, a pint of beer daily.

House of Commons Paper, No. 2, Agricultural Labourers (Ireland). Sess. 1862.

(XV.)—Statement of the Average WEEKLY MONEY WAGES of AGRICULTURAL LABOURERS in Ireland in 1843-4, and in 1860.

IRELAND. — Provinces and Counties.	Weekly Wages of Men.		Increase in 1860.	Remarks.
	1843-4.	1860.		
I. ULSTER—	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	
1. Donegal	4 9½	6 10	2 -½	
2. Londonderry	5 3	7 6	2 3	
3. Antrim	5 8	8 4	2 8	
4. Tyrone	5 -	7 5	2 5	
5. Fermanagh.....	4 11	6 -	1 1	
6. Monaghan	4 6	7 -	2 6	
7. Armagh	5 6	7 5	1 11	
8. Down	5 10½	8 -	2 1½	
9. Cavan.....	4 2	7 1	2 11	
Average	5 1	7 3½	2 2½	
II. CONNAUGHT—				
10. Leitrim	3 10	6 4	2 6	
11. Sligo	3 10	6 2½	2 4½	
12. Mayo	3 8½	6 -	2 3½	
13. Roscommon*.....	3 8½	10 2	6 5	* The very high rate in Roscommon county, in 1860, was apparently due to the demand for labour consequent upon the making of one or two lines of railroad through the county.
14. Galway	3 9	6 5	2 8	
Average	3 9	7 -¼	3 3¼	
III. LEINSTER—				
15. Longford	3 6	6 -	2 6	
16. Westmeath.....	4 1½	7 -	2 10½	
17. Meath.....	4 10	7 9	2 11	
18. Louth	4 10	6 -	1 2	
19. King's County ...	4 2	7 8	3 6	
20. Kildare	5 1	8 -	2 11	
21. Dublin	6 9	8 9½	2 -½	
22. Queen's County ...	4 6	6 -	1 6	
23. Carlow	5 -	7 -	2 -	
24. Wicklow.....	4 7	7 6	2 11	
25. Kilkenny	4 5	5 7	1 2	
26. Wexford.....	4 6	6 3	1 9	
Average	4 8½	6 11½	2 3	
IV. MUNSTER—				
27. Clare	3 10½	7 -	3 1½	
28. Limerick	4 -	7 -	3 -	
29. Tipperary	4 1½	6 5½	2 4	
30. Kerry	4 -	8 4	4 4	
31. Cork	4 -	7 4	3 4	
32. Waterford	4 2†	6 6†	2 4	† The wages are partly paid in food in this county; 2s. per week is now the usual cost at which a man's food is estimated (see Table XVII Appendix).
Average	4 -	7 1	2 11	
Average of Ireland	4 6	7 1	2 7	

Note.—The average wages for 1843 are deduced from the statements of 373 witnesses examined before the Commissioners appointed to inquire into the occupations of land, Ireland, 1844.

(XVI.)—*Comparative Statement of the Average WEEKLY WAGES of AGRICULTURAL LABOURERS, and of Six descriptions of ARTIZANS, throughout Ireland.*

Poor Law Inspectors, and their Districts.	Average Weekly Wages, 1854-5.						
	Agricul- tural Labourer.	Tailor.	Shoe- maker.	Weaver.	Carpenter.	Baker.	Bricklayer and Mason.
<i>Mr. Burke's—</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Carlow, King's, Kildare, Kilkenny, Queen's, Tipperary, Wexford, and Wicklow	6 -	10 6	10 6	11 -	16 6	—	16 6
<i>Mr. Lynch's—</i>							
Cork, Kilkenny, Queen's, and Tipperary	6 -	12 -	12 -	10 -	16 -	15 -	17 6
<i>Mr. R. Hamilton's—</i>							
County of Cork	5 -	10 -	10 -	—	18 -	18 -	18 -
<i>Mr. W. Hamilton's—</i>							
Tipperary, Waterford, Kilkenny, and Wexford }	6 3	15 -	15 -	9 6	18 -	19 -	19 -
<i>Mr. Horsley's—</i>							
Cork, Kerry, and Limerick	6 -	12 -	12 -	5 -	21 -	—	21 -
<i>Mr. R. Bourke—</i>							
Leitrim, Mayo, Roscom- mon, Sligo, and Done- gal	6 6	13 6	15 -	7 6	18 -	—	18 -
<i>Mr. Crawford's—</i>							
Tipperary, Carlow, Dub- lin, Kildare, Kilkenny, Queen's, Wexford, and Wicklow	6 -	14 3	14 -	17 -	19 9	16 6	18 3
<i>Mr. Hall's—</i>							
County of Cork	6 -	10 6	12 -	9 -	17 -	15 -	18 -
<i>Mr. Robinson's—</i>							
Antrim, Armagh, Cavan, Down, Londonderry, Monaghan, and Tyrone }	7 6	12 6	11 6	7 6	16 6	—	16 6
<i>Mr. O'way's—</i>							
Dublin, Kildare, King's, Longford, Louth, Meath, and Westmeath }	6 -	12 -	12 -	7 -	18 -	16 -	18 -
<i>Mr. Lucas's—</i>							
Clare, Limerick, and Tip- perary	6 -	15 -	15 -	15 -	18 -	15 -	19 6
<i>Mr. O'Brien's—</i>							
Galway, Roscommon, King's, Westmeath, and Tipperary	9 -	15 -	15 -	6 -	18 -	15 -	18 -

Note.—Abstracted from the “Seventh and Eighth Annual Reports of the Irish Poor Law Office.”

(XVII.)—Statement of the WEEKLY COST of the DIET consumed by the Poorer Classes in Ireland in 1859.

IRELAND. — Provinces and Counties.	Number of Families.	Average Number of Persons in each Family.	Weekly Expenditure for Food.	Rate of Expenditure for each Person.	Remarks.
I. ULSTER—	No.	No.	s. d.	d.	Wherever the reports from which the data of this table were derived, discriminated the country from the town labourer, the facts relative to the former only were taken; also where any distinction had been maintained by the Inspectors between the cost of the agricultural labourer's and of the country artisan's diet, the figures relating to the former were alone abstracted.
1. Donegal	10	7.0	6 1 $\frac{3}{4}$	10.5	
2. Londonderry	10	7.6	7 11 $\frac{1}{2}$	12.6	
3. Antrim	8	5.2	5 6	12.7	
4. Tyrone	10	6.3	7 2	13.7	
5. Fermanagh	10	5.5	5 9 $\frac{1}{2}$	12.6	
6. Monaghan	12	5.5	3 5	7.5	
7. Armagh	16	6.5	5 4	9.8	
8. Down	2	7.0	5 6	9.0	
Total	78	6.3	5 9 $\frac{1}{2}$	11.0	
II. CONNAUGHT—					
12. Mayo	7	6.0	7 2 $\frac{1}{2}$	14.4	
13. Roscommon	1	6.0	9 6	19.0	
14. Galway	4	7.0	9 4 $\frac{3}{4}$	16.0	
Total	12	6.3	8 1 $\frac{1}{2}$	15.5	
III. LEINSTER—					
15. Longford	3	6.7	11 11	21.3	
16. Westmeath	14	6.4	7 11 $\frac{1}{4}$	14.9	
17. Meath	3	5.0	8 2	19.6	
18. Louth					
19. King's County	2	5.5	7 $-\frac{1}{2}$	15.4	
20. Kildare*	6	5.7	4 11 $\frac{1}{2}$	10.4	
25. Kilkenny	5	7.0	6 8	11.4	
26. Wexford	2	5.5	7 4	16.0	
Total	35	6.0	7 6 $\frac{3}{4}$	15.0	
IV. MUNSTER—					
27. Clare	8	5.7	6 $-\frac{1}{2}$	12.7	
28. Limerick	6	6.3	9 3	17.6	
29. Tipperary	4	6.0	9 3 $\frac{1}{2}$	18.5	
30. Kerry	14	6.9	9 7 $\frac{3}{4}$	16.8	
31. Cork	2	5.0	7 10	18.8	
32. Waterford†	9	6.0	7 5	14.8	
Total	43	6.2	8 4	16.1	
Grand Total of 25 } counties	168	6.4	6 11 $\frac{1}{4}$	13.0	

* These figures relate to six families residing in five counties, namely, Kildare, Kilkenny, Queen's, Wexford, and Wicklow.

† Inclusive of parts of unions in Limerick county.

Note.—The data upon which this table is based, have been abstracted from the reports of the Irish Poor Law Inspectors on the Dietary of the Labouring Poor, published in the "Thirteenth Annual Report of the Irish Poor Law Commissioners," pp. 31—87.

(XVIII.)—Statement for One Year of the Cost of Clothing of an AGRICULTURAL LABOURER’S FAMILY, in or about 1860.

No. 1.

Statement in respect of a District in the County of Galway.

Articles of Clothing.	Price.	Remarks.
<i>Husband—</i>	£ s. d.	
One coat	- 12 6	} Sale of pig
„ vest	- 3 -	
„ pair of trousers	- 7 -	} Savings of wages
Two shirts	- 2 6	
One pair of shoes	- 8 -	
„ cap, &c.	- 2 6	
	1 15 6	
<i>Wife—</i>		
Two petticoats....	- 5 6	} Savings of husband’s wages, and about 10s. earned by wife in knitting stockings
„ shifts	- 3 6	
One gown	- 3 6	
„ kerchief	- 2 -	
Two aprons.....	- 1 3	
	- 15 9	
<i>Four Children, 1 to 12 years of age—</i>		
16 yards of calico	- 5 4	} From wages
16 „ flannel.....	1 - -	
	1 5 4	
Total	3 16 7	

Note.—One of the poorest districts in all Ireland.

(XVIII.)—Statement for One Year of the Cost of Clothing, &c.—Contd.

No. 2.

A Statement showing the Cost of Clothing a PEASANT LABOURER, his WIFE, and CHILDREN, for Twelve Months, in the County of Limerick.

<i>The Peasant.</i>			<i>Son of 10 Years of Age.</i>		
	£	s. d.		£	s. d.
Two shirts, including making	—	5 —	Two shirts	—	2 6
Flannel drawers and waistcoat	—	7 —	Small clothes	—	2 6
Cord breeches, including tailor	—	5 —	Two pairs of socks	—	1 —
Waistcoat	—	3 —	Pair of shoes	—	4 6
Two pairs of stockings	—	2 —	Cord jacket and vest, 3s. 6d., } lining and tailor, 1s. 6d. }	—	5 —
Pair of strong shoes	—	10 —	Cap	—	1 —
Frieze coat, including trim- } mings and tailor	—	16 —			
Hat	—	3 —	Total	—	16 6
Total	2	11 —			
<i>His Wife.</i>			<i>Son of 7 Years of Age.</i>		
Two chemises	—	2 —	Two shirts	—	1 6
„ petticoats	—	10 —	Cord dress, including trim- } mings and tailor	—	5 6
„ pairs of stockings	—	1 —	Shoes and stockings	—	4 6
Pair of shoes	—	6 —	Cap	—	— 6
Gown, 8s., lining, &c. 2s.	—	10 —			
Two aprons	—	1 —	Total	—	12 —
„ caps	—	2 —			
Shawl	—	3 —			
Cloak	—	10 —			
Total	2	5 —			
<i>Daughter of 12 Years of Age.</i>			<i>Two Children, from 2 to 4 Years of Age.</i>		
Two chemises	—	2 6	Say 5s. each	—	10 —
„ petticoats	—	6 —			
„ pairs stockings	—	1 —			
Pair of shoes	—	5 —			
Frock	—	3 —			
Neckerchief, 2s., two aprons, } 1s. 6d., cloak, 5s. }	—	8 6			
Total	1	6 —			
			<i>Summary.</i>		
			The peasant, cottager, or } husbandman	2	11 —
			His wife	2	5 —
			Girl of 12 years	1	6 —
			Boy of 10 „	—	16 6
			„ 7 „	—	12 —
			Two children, 2 to 4	—	10 —
			Total for peasant's family	8	— 6

(XVIII.)—Statement for One Year of the Cost of Clothing, &c.—Contd.]

No. 3.

Ballina (a Poor Western Union), County Mayo, Province of Connaught.

The Clerk of Ballina writes:—

1. The average weekly wages of a *farm labourer* of this district (except say one month in spring and one month in autumn, when the wages reaches 1s. 6d. per day) is 6s.

2. The cost of his clothing for one year is as follows:—

	£	s.	d.
Coat, 4 yards home-made frieze, at 3s. per yard	—	12	—
Vest, 1 „ „ „ „	—	3	—
Trousers, 3½ yards corduroy at 1s. per yard	—	3	6
Cost of making and trimmings	—	10	—
One pair of brogues	—	5	—
Hat	—	2	6
Total	1	16	9

3. Clothing for wife for one year:—

	£	s.	d.
One gown, 7 yards coburg, at 8d. per yard	—	4	8
Two petticoats, 4 yards flannel, at 1s., and } 4 yards coburg, at 8d. per yard	—	6	8
One chemise, 3 yards calico, at 4d. per yard ...	—	1	—
„ handkerchief	—	1	—
„ apron	—	—	6
„ linen cap	—	—	6
Cost of making and trimming	—	3	—
One pair of shoes	—	4	—
Total	1	1	4

4. Cost of clothing for five children, at and under 12 years of age, supposing two to be boys and three to be girls:—

	£	s.	d.
The cost of two suits of clothes for the boys, } at 4s. 6d. per suit	—	9	—
The cost of three suits for the girls, at 11s. } per suit.....	1	13	—
Total	2	2	—

The total expense of clothing for the entire family, consisting of husband, wife, and five children for one year, would therefore be ... }	4	19	4
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5. The labourer depends for providing such clothing upon the sale of one or more pigs, and the increased rate of wages in the spring and autumn of the year. The wife, too, if a strong healthy woman, could also get employment at those seasons of the year.

(XIX.)—*A Statement showing the Cost of Materials for Articles of Clothing supplied to WORKHOUSE INMATES in the KILMALLOCK UNION, County Tipperary and Limerick, in the Year 1860 (all the Articles Made in the Workhouse, except Shoes, by Pauper Labour).*

No. 1.

<i>Man.</i>				<i>Boy under 15 Years.</i>			
	£	s.	d.		£	s.	d.
Shirt, calico	—	1	4½	Shirt, calico	—	—	9½
Socks, woollen	—	—	9	Socks, woollen	—	—	9
Trousers, frieze	—	5	6	Trousers, frieze*	—	4	6
Vest, „	—	2	6	Vest, „	—	1	9
Jacket, „	—	8	6	Jacket, „	—	6	—
Cap, „	—	—	6	Cap, „	—	—	6
Shoes, leather	—	6	10½	Shoes, leather	—	4	8½
	1	6	—		—	19	—
<i>Woman.</i>				<i>Girl under 15 Years.</i>			
	£	s.	d.		£	s.	d.
Chemise, calico	—	1	4½	Chemise, calico	—	—	9½
Stockings, woollen	—	1	—	Stockings, woollen	—	1	—
Petticoat, flannel	—	3	10	Petticoat, flannel	—	1	11
„ linsey	—	4	2	„ linsey	—	2	1
Wrapper, Bengal stripe	—	2	3	Wrapper, Bengal stripe	—	1	2
„ twilled calico	—	1	3½	Frock, Chambray	—	2	6
Cap, calico	—	—	2	Bib, check	—	—	6
Neckerchief, woollen	—	1	9	Shoes, leather	—	4	2½
Apron, check	—	—	6		—	14	2½
Shoes, leather	—	4	9½				
	1	1	1½				

* Corduroy is not used in this workhouse.

(XIX.)—Statement of Cost of Clothing, &c.—Contd.

No. 2.

Statement of Cost of Clothing in CLIFDEN UNION WORKHOUSE (one of the Poorest Districts).

<i>Adult Male Pauper.</i>			<i>Boy 12 Years of Age.</i>		
	£	s. d.		£	s. d.
One coat	—	6 6	One coat.....	—	3 —
„ vest.....	—	2 —	„ vest.....	—	1 —
„ pair of trousers	—	5 —	„ pair of trousers	—	2 —
Two shirts	—	2 —	Two shirts	—	1 6
One cap	—	1 2	One cap	—	1 —
„ pair of clogs	—	3 6			
	1	— 2		—	8 6
<i>Adult Female Pauper.</i>			<i>Girl 12 Years of Age.</i>		
	£	s. d.		£	s. d.
One wrapper	—	1 4	Two frocks.....	—	4 —
Two petticoats	—	6 —	„ petticoats	—	4 —
„ shifts	—	1 10	„ shifts	—	1 4
„ kerchiefs.....	—	2 —	„ bibs	—	1 —
„ caps	—	— 3			
„ aprons	—	1 —		—	10 4
	—	12 5	Total	2	11 5

(XIX.)—Statement of Cost of Clothing, &c.—Contd.

No. 3.

Statement of the Cost of Clothing in ATHLONE UNION, of an Adult MALE and FEMALE PAUPER, also of a BOY and GIRL 12 Years of Age.

<i>Adult Male.</i>			<i>Boy.</i>		
	£	s. d.		£	s. d.
Frieze coat.....	—	8 3	Frieze coat	—	6 2
„ vest.....	—	2 1	Lining	—	— 8
Lining for coat and vest, with } thread, buttons, &c. }	—	1 1	Trousers	—	3 1
Trousers.....	—	4 5	Cap	—	— 10
Cap, 1s., shoes, 6s. 6d., } socks, 6d. }	—	8 —	Shoes	—	5 6
Shirt	—	1 —	Socks	—	— 6
	1	4 10	Shirt.....	—	— 9
<i>Woman.</i>			<i>Girl.</i>		
	£	s. d.		£	s. d.
Shift	—	1 3	Shift.....	—	— 11½
Under petticoat	—	3 —	Petticoat	—	2 9
Over „	—	4 —	Frock	—	2 9
Wrapper.....	—	2 —	Bib	—	— 10½
Apron.....	—	— 7	Thread, tape, hooks, and } buttons..... }	—	— 3½
Handkerchief, 5d., cap, 1d.	—	— 6			
	—	11 4		—	7 7

(XX.)—*Statement of the YEARLY RENTS Paid by the Irish Peasantry in 1843-4, for Cabins and Cottages. The Lower Rents indicate either that there was a very Small Piece of Ground included, or none at all; the Higher Rents secured greater benefits in the way of Land.*

	s.	s.	s.	s.	s.	s.	s.
I. ULSTER—							
1. Donegal	20	30	35	40	60	90	120
2. Londonderry	20	30	—	40	50	80	—
3. Antrim	21	25	30	35	40	50	60
4. Tyrone	20	30	—	40	50	60	—
5. Fermanagh	—	—	—	40	50	60	—
6. Monaghan	—	25	30	40	50	60	—
7. Armagh	20	30	—	40	—	60	80
8. Down	25	30	—	40	52	60	—
9. Cavan	20	25	30	40	—	—	—
II. CONNAUGHT—							
10. Leitrim	—	30	—	40	—	—	—
11. Sligo	15	20	—	40	50	60	—
12. Mayo	—	—	—	40	—	—	—
13. Roscommon	25	30	—	40	—	—	—
14. Galway	20	25	30	40	—	—	—
III. LEINSTER—							
15. Longford	—	—	—	40	50	60	80
16. Westmeath	—	30	—	40	50	—	—
17. Meath	20	—	—	40	52	60	—
18. Louth	21	30	—	40	50	—	—
19. King's County	—	—	—	40	52	—	80
20. Kildare	—	26	—	40	50	60	—
21. Dublin	20	—	—	40	—	—	—
22. Queen's County	20	—	—	—	—	—	—
23. Carlow	—	30	—	—	—	60	80
24. Wicklow	20	—	—	40	52	—	—
25. Kilkenny	—	30	—	40	—	—	—
26. Wexford	15	30	—	40	—	—	—
IV. MUNSTER—							
27. Clare	—	—	—	40	—	—	—
28. Limerick	20	30	—	40	50	—	70
29. Tipperary	20	30	—	40	50	60	—
30. Kerry	20	—	—	40	—	—	—
31. Cork	20	30	—	40	—	—	—
32. Waterford	—	30	—	40	—	60	80

Note.—Abstracted from the evidence given before Lord Devon's Commission on the occupation of land, Ireland.

On the UTILITY of COLONIES as FIELDS for EMIGRATION.

By HERMAN MERIVALE, ESQ.

[Read before Section (F) at Cambridge, 6th October, 1862.]

THE utility of colonization to a community circumstanced like that of England, is pretty generally admitted. It is usually considered to be the result of two main causes,—first, and most important, the superior productiveness of capital and labour when applied to a new soil ; secondly, the relief which emigration affords to the pressure of population on subsistence. It is, of course, perfectly true in the abstract that, under a system of free trade, a country would gain as much by directing her capital and her emigrants to a new soil under foreign dominion as under her own. But as, in the present state of the world, England is the only colonizing country of Europe, this truth becomes of little practical importance.

The benefit of colonization may therefore stand for my purpose as admitted. But how far the retaining a colony under the dominion of the mother country contributes—first, to the facility of investing capital there ; secondly, to the facility of locating emigrants there ; is quite another question.

Put in a scientific shape, the question of the “economical advantage of colonies” might stand as follows:—How far is the profitable application of the accumulated knowledge, capital, and labour of an old country to the production of wealth in a new country aided by the circumstance that both are under the same Government?—a question not so easily answered as is sometimes supposed, but of which the solution belongs to the politician, not the economist. Obviously, under a system of free trade, it would be immaterial how soon a colony shook off the dominion of the mother country (or rather the mother country would gain through a reduction of expenditure), if the emancipated colony remained equally prosperous and equally friendly. But if it did not ; if its advance was checked by internal insecurity, if it became actuated by feelings of hostility, if it fell under the dominion of, or into connection with, foreign states ; if it adopted hostile tariffs, or opposed the admission of our emigrants ; then we should find that the loss of the colony was the loss of an economical advantage. And then we might, perchance, discover that “ships, colonies, and commerce,” are a little more nearly connected than it is now the fashion in some quarters to suppose them.

The greater branch of this subject, that, namely, which relates to the increase of wealth in new countries, and how far this may depend on political connection, I intend to leave for the present; and to confine myself to the minor, but still very important inquiry, how far the advantage which we derive from emigration as an outlet for our people, might be affected by any political change involving the loss of colonial empire.

I. The beneficial effect of regular, sustained, and copious emigration on the social condition of the country whence the emigrants proceed, is scarcely, in my belief, appreciated as it should be by political thinkers. It is our habit rather to look on emigration as beneficial to the emigrants only, or to the mother country but indirectly, through increase of trade. But, although this may be the more important side of the question, as it certainly is the most attractive, the other also merits very earnest attention. It is necessary that we should estimate at its right value the good we have hitherto enjoyed from unlimited facility of emigration, and the danger we now run of having that advantage very seriously curtailed. It is necessary to fix our eyes at the outset on the old Malthusian doctrine, which has been a little out of sight of late years, owing to the prosperity which has recently prevailed, but which is as true now as it ever was, and is receiving some very remarkable confirmations, and expanding into some unsuspected corollaries. Population in any country has a tendency to increase more rapidly than the means of subsistence can increase. Population doubles in twenty or twenty-five years. Subsistence (unless under very extraordinary circumstances), will not increase in anything like this ratio. The disproportion must be kept down, either by increase of deaths, or by a diminution in the amount of subsistence enjoyed by each individual (that is, a falling off in the general well-being), or by diminution of births through the "prudential" check,—that is, generally speaking, by fewer and later marriages; or, lastly, by emigration. Of course, any number of these causes may be found in combination.

Now ever since the commencement of the potato disease in 1845, if not a little earlier, there has been a very marked diminution in the rate at which population has advanced in Western Europe. In France the rate of increase was estimated at 0.646 per annum from 1801 to 1836; at 0.445 from 1836 to 1856, and is now less. In Western Germany there has been an extremely slow increase in most parts, an actual diminution in others*. In our own country, taking the United Kingdom together, the population, since the census of 1841, has increased no faster than that of France. That of Ireland has greatly diminished. That of Scotland has scarcely increased at

* In Hesse, Electoral and Grand Ducal, from 1,610,000 in 1852, to 1,571,000 in 1858.

all. The whole increase is in England and Wales, and generally speaking in the towns and manufacturing districts.

To take the case of England and Wales alone, these had 18,000,000 of inhabitants in 1851; 20,000,000 in 1861; but it must be remembered that England draws constantly-increasing supplies of people from other parts; the whole 2,000,000 therefore, cannot be set down as natural increase. Probably the entire natural increase in the decennium has been under 10 per cent.; that of France something under 4 per cent. And yet during the same decennium, England and Wales has sent out emigrants in great numbers; France none at all—that is, the accessions to her population from without are supposed to balance her trifling loss by emigration. It is not possible to estimate exactly the number of emigrants from England and Wales, exclusive of the rest of the United Kingdom, but probably throughout the decennium they have averaged above 100,000 a-year. The births in the same period have increased from 600,000 to nearly 700,000 per annum, average 650,000. The marriages in 1851 were 154,000; in 1860, 170,000. That is, they increase at about the same rate as the population. There have been from four to four and a-half births in each year in proportion to every marriage which has taken place in each year; so that the fertility of marriages may be represented by 4·5—a rate which appears to be steady. I omit, for the sake of simplicity, all corrections arising from illegitimate births, which would not materially affect the general result.

Now if we suppose that no emigration had taken place, but that the number of marriages, condition, and increase of the population had remained the same, it is clear that there could only have been something less than four births in the year for every marriage. “The prudential check” on births must needs have operated to this extent, probably through later marriages. In other words, every sixth child, or nearly so, has been provided for by emigration. Now let us see what amount of verifications these estimates and conjectures derive from the known facts regarding the progress of population in France during the same period.

In France, as has been said, the increase in the decennium has been barely 4 per cent., and there has been no emigration; consequently there must have been either,—1. Diminution in the comfort of the population. But the contrary is the fact. The general well-being has a tendency to increase. From 1817 to 1824 the average duration of life was 31·8 years; from 1847 to 1854, 37·4, and is now about 38. (I quote from tables contained in the “*Annuaire de l'Economie Politique*.”) Longer life implies more comfortable life; or, 2. Increased mortality. But the same table (of the average duration of life) disproves this likewise. Mortality has in France a tendency to diminish; or, 3. Diminution in the relative

number of marriages. But the relative number of marriages does not diminish, but remains singularly stationary. (In 1821-30, 1 for 127·71 inhabitants; 1831-40, 1 for 125·82; 1841-50, 1 for 126·01. I have not seen a later return, but there is no reason to suppose any sensible variation). 4. We are, therefore, reduced by the exhaustive process to the last and inevitable conclusion, since all other conceivable causes fail. The only reason for the scarcely perceptible rate of advance in the French population, must be a diminution in the fertility of marriages; and this fact, to which *a priori* reasoning thus forcibly leads us, is fully proved by statistical records. While marriages have, as we have seen, augmented with the population, births have remained for forty years absolutely stationary. In 1817 there were 944,000 births in France; in 1856, 952,000; and in the whole number of years since 1815, they have, I think, never fallen short of 900,000, nor exceeded 1,000,000. The average fecundity of marriages is, therefore, steadily, but slowly, diminishing. From 1822 to 1831, it was represented by 3·64; 1832 to 1841, 3·41; 1842 to 1851, 3·19; in 1855 it had fallen to 2·96; in 1856, risen to 3·11. “Si cette diminution ne s’arrête pas” (says a writer in the “Annuaire de l’Economie Politique”), “on peut prévoir au moins le moment où la population deviendra complètement stationnaire.”

Stated broadly, therefore, the result is this. Both in France and England the well-being of the people increases, or at all events does not diminish. But in order to secure this essential, the French are compelled to contract later marriages and have fewer children than heretofore. The English can enjoy the same result without putting the like constraint on nature, and may marry almost as early as their forefathers did, although they live much longer; and this they owe in great measure, though not wholly, to an established emigration, which has become part of the institutions of the country, and which makes provision for pretty nearly one child in six. I do not wish to exaggerate the advantages of early marriages and numerous children. It may be that the French, on the whole, purchase cheaply the maintenance of the national well-being by the sacrifice of a portion of the reproductive powers of their people. But I think none will hesitate for a moment in esteeming that nation comparatively happy, which can equally maintain the national well-being without such an unnatural and unhealthy sacrifice; and, if so, none can be blind to the enormous advantage of continuous, and therefore reliable, emigration as an outlet.

II. It is necessary now to proceed to the second branch of our inquiry. If emigration can be carried on as copiously and as regularly without colonization as with it, colonization is clearly (as far as the interest of emigration is concerned) a mere loss. Colonization involves considerable expenditure of capital in founding

colonies, some expenditure in governing them. Germany (or at least the western and northern parts of it) has profited very greatly by emigration, and that without any cost to its Government at all. In the last ten years a million of German colonists have gone to the United States alone. I have said that in some parts of the country the population is stationary, probably kept down in great measure by emigration; and there is no reason to doubt that this efflux must have contributed materially to the maintenance of the standard of well-being. The United Kingdom, from 1825 to 1855, sent in round numbers a million and a-half of emigrants to the colonies, two millions and a-half to the United States.* But the placing of the million and a-half cost the British taxpayer considerable sums for the foundation of the Australian colonies, and for the defence of all. The placing of the two millions and a-half cost the British taxpayer nothing.†

This is true, and it is a truth which only two years ago was pretty generally deemed conclusive of the question. It appeared clear that colonies were no gain to us, for the absorption of emigrants, except as regards that overplus only for whom the States had no room. But two years have made an enormous, and it is to be feared, a durable change in our prospects in this respect. The great receptacle of the emigrants of the world, the great refuge of the poor, the great home of the homeless, the great field for the adventurous seems to be closed. Permanently closed it can hardly be. Its natural advantages remain the same as ever; the need of Europe remains the same; and in some way or other, these advantages will, we must hope, be made available for that need. But political foresight fails to see how or when. Distracted, indebted, separated states will ill supply the place of that vast and teeming confederacy which has taken our children to its bosom for more than half a century. And even a restored Union, if such a thing be yet possible, must go through a long stage of recovery from its present calamities, before it can be attractive to the emigrant as heretofore.

Few, I think, have at all realized the nature and magnitude of the evil which is impending over us from the closing, even for a time, of that outlet for our superabundant population. For it is most important to observe that its great value arose not only from its largeness, but from its extensive regularity of action. It was a safety valve always open, and expanding and contracting almost to our wish. Periods of comparative depression here, such as rendered emigration

* These numbers are only approximative, as many emigrants go to Canada only on their way to the States; while on the other hand, at certain times, there is a considerable reflux from the States to Canada; but they may serve for our present purpose.

† In strict accuracy, this is not so, as there is considerable export of capital along with emigration. But as this is equally the case in respect of all emigration, it may be left out of the account.

more desirable, were seldom coincident with periods of comparative depression in the States; and, indeed, the broad West hardly knew depression at all. Emigration has been, as I have said, the regular provision for one child in six born in this part of the United Kingdom; but in Ireland more nearly for one child in three. Those must be far more sanguine than I am, who can look without great apprehension at the results of the threatened abolition of that provision, or at least much more than half of it, being the proportion which the States have hitherto afforded. If the privation were to be permanent, it could, as we have seen, be only met by increased mortality, or increased privation, or (and more probably) by an approximation to the French reduced rate of offspring to a marriage. But men do not change without a struggle their habits for the worse, and much trouble would be gone through before our population accommodated itself to the new and deteriorated state of things. I know not whether the same idea may have occurred to others, but to my mind there is at least a very ominous coincidence of date between the interruption of peaceful emigration from Ireland to America, which I believe has already commenced, and the lowering and discontented humour which has so suddenly come to the surface in a portion of the Irish population.

And it surely follows—to come back to that which is the main purpose of this essay—that continued colonization, and the continuance also of our political relation with such colonies as we possess, are more than ever important to the social well-being of the community. Canada, as long as it remains connected with us, affords a certain and regular place of resort for no inconsiderable portion of our overflow. How long Canada might do so if we were to follow the advice of a modern political school, by leaving her to independence—that is, to forming connection with the States or with neighbouring portions of them—no wise man, with the civil war now raging before his eyes, will venture to anticipate. Emigration to Australia and New Zealand is carried on at a greater disadvantage, owing to distance; still it has carried off on the average one-eighth of our overflow since 1825, and will carry off a great deal more. It is, in truth, as yet in its infancy; but let us withdraw from Australia the protection of the British flag, and it is highly improbable, on all ordinary political calculation, that emigration would continue to anything like the same amount when the sense of security now felt under British institution had ceased to exist. The greater the loss, in short, which the sufferings of the American Republic have inflicted on us and on the world, the greater the importance of keeping our hold on those substitutes which have been left to us, and of which the eventual value is as yet undeveloped.

*On the PREVENTION of CRIME. By EDWIN HILL, Esq., of the
Inland Revenue Office.*

[Abstract of a Paper read in Section (F), at Cambridge, 7th October, 1862.]

MR. E. HILL's paper called attention to the large number of habitual criminals whose sole occupation it is to plunder others,—a predatory class,—harbouring in the very bosom of society, and keeping its ground in undiminished numbers in spite of all the forces brought to bear against it. In illustration of the magnitude of this evil the following particulars were given (in round numbers) from the "Judicial Statistics" for 1858 and 1861, for England and Wales.

The known thieves and receivers of stolen goods are stated to be 44,000; the prostitutes, 29,000; suspected persons, 39,000; vagrants and tramps, 23,000: making a total of 135,000 individuals, believed to be living wholly, or for the most part, by criminal practices. The houses of bad character inhabited or frequented by criminals, 24,000. The cost of repressive measures paid by the rates and taxes, for the year 1861, 2,548,000*l.*, in addition to the heavy expenses falling upon individuals, and the loss of time incurred by witnesses, jurors, and others. The loss of property from depredation was estimated by Mr. Redgrave, for the year 1858, at seven millions and three-quarters, making a total loss of upwards of ten millions per annum, attributable mainly to the class of habitual criminals.

To give some idea of the number of crimes due to this class, it was stated that London is believed to harbour some 5,000 habitual depredators; who, if taken upon the average to commit but one crime per day each, would commit upwards of a million and-a half of crimes in the year.

The moral evils were also noticed. The dread and anxiety suffered by thousands, especially the aged, the feeble, and the timid;—the crimes of a few desperate men sometimes spreading panic through the whole country.* The contamination of the young, especially

* "Thieving with all its terrors, costliness, and enormity, is a dark streak in the otherwise brightening horizon of modern civilization. It flits in the portentous shadows of prison walls, and there is a voice from the echoes of every policeman's footfall, telling of something bad under the surface of society; and cautioning us to beware of the danger. We never retire to rest without feeling that we may be maimed and terror stricken in our beds; or waking, may find the hard earnings of honest toil purloined beyond possibility of recovery, by a set of worthless vagabonds who are too lazy to earn their own living; and who, with the cowardly rascality that belongs to them, subsist on the stolen property

of the children of the honest working man, who often has no means for escaping the localities infected by crime. And lastly, the pitiable fate of the children, born amidst crime; who, if they have not the good fortune to die early, have no possible escape from the contamination that surrounds them; many being even beaten into crime, and destined to fall ultimately into the grasp of the law to have these criminal teachings then scourged out of them, if it be not too late to be possible. Probably not fewer than five or six infants per day are born in this Christian country, so surrounded by a network of crime as to make escape from this fearful destiny all but impossible.

The writer then observed as follows:—The obstinate vitality of this crying evil impels us to undertake a thorough reconsideration of the conditions of that vitality; with a view to the discovery of some more vulnerable part than has hitherto been assailed; or, better still, of some one vital condition that it may be possible to withdraw altogether.

The command of premises for dwelling, for places of congregation, and for the warehouses, workshops, &c., used by the receivers of stolen goods, the coiners, the illicit distillers, and the thieves' instrument makers, and, lastly, for the training of young thieves, would undoubtedly appear to be one of the essential conditions of the existence of the predatory class. For had such shelter and harbourage been heretofore wholly unattainable, it is not too much to say that the class could never have come into existence. Assuming, then that the command of adequate premises is a vital condition, it remains only to consider whether, practically, the community has power to withdraw such condition. And, having regard to our Anglo-Saxon dislike to meddlesome or intrusive Governmental interference, whether the object of depriving the predatory class of the command of the premises indispensable to their plundering operations can be accomplished without having recourse to enactments of an arbitrary and inquisitorial character.

The use of premises is of course obtained by the payment of rent; and as no honest owner of house property would willingly receive rents which he knew or even suspected to be derived from the plunder of his neighbours, it follows, that the members of the predatory class can obtain tenancy only from landlords who are ignorant of the vocation of their tenants, or from landlords who are not unwilling to accept the proceeds of crime in payment. But for ignorance, or connivance, therefore, the predatory class would cease to be able to obtain harbourage, and must speedily fall into dispersion.

“of others. Will there ever be an end to thieves and robbers? Is there no means of getting rid of this interminable expense, damage, and terror.”—*“Cornhill Magazine,” September, 1860.*

As to the conniving landlords, since there is no moral difference between receiving the proceeds of stolen property knowingly, and receiving the stolen property itself, they cannot expect much sympathy, whatever pressure may be put upon them to compel them to act as honest men. Enjoying their property under the shadow of the law, it is intolerable that they should *knowingly* allow their property to harbour those who live by breaking the law.

As regards those landlords whose property is infested by criminals without their knowledge, such could not have happened had the public mind been so far advanced upon the subject as to have recognized it as the plain duty of the owners of house property to refuse tenancy to all persons of doubtful character; *i.e.*, to all who could not show, beyond all reasonable doubt, that their rents would be *paid out of honest gains*, and nowise from the proceeds of crime, directly or indirectly. It could not have happened, even, had the interests of the landlords as a body, in the suppression of the predatory class, been well understood. Since, in the towns at least, the heavy expenses annually incurred in the repression of crime cannot but fall ultimately upon the house property, seeing that although the tenants actually disburse the police and county rates, these outgoings are doubtless considered by the tenant in estimating the rent he can afford; it being immaterial to him whether he pays more to the rate-collector and less to the landlord, or more to the landlord and less to the collector. Hence, a landlord who allows his property to harbour criminals, is a traitor to the interests of the landlord body, and would, no doubt, be so stigmatized, had the subject undergone that long and earnest discussion, which must have ended in the formation of a strong and healthy public opinion regarding it.

Had such public opinion been now existent, nothing further would have been needed than to find the means of restraining the *few* unscrupulous landlords who, for the sake of high rents, from whatever tainted source obtained, would set public opinion at defiance. The matter, however, has to be dealt with under existing conditions. The question therefore is,—In what way can the law most readily deal with house property, so as to induce its owners wholly to shut out the thief, his aiders and abettors?—so that the landlord's rule may be “No honesty no house.” The answer is, that the pressure of the rates now levied for the repression of crime, the police and county rates, &c., do constitute an ample force adapted to this purpose, lying ready to our hands, and requiring only to be rightly wielded. It is but to “put the saddle on the right horse.” It is, in truth, simply a question between the great majority of house-owners who do *not* suffer their property to harbour the plunderers of their neighbours, and the small minority who *do*.

Now the law, judging between these parties, might justly say to

the offending minority, "But for the shelter you afford the predatory class, it must be wholly dispersed, and the heavy burden of its repression thenceforth cease. Therefore either do as your fellow-landlords do, and so sweep away the burden altogether, or prepare to take it wholly on your own shoulders;—justice will not allow that loss to fall upon the whole body, which, but for the laches of certain of its members, would be got rid of altogether." To this it may be added that herein justice and sound policy go hand in hand; for, of all means of getting rid of a preventible evil, surely that of making its removal the strong and unmistakable interest of those upon whose will its continuance depends, must ever be the most simple and the most certain.

There are two modes of proceeding whereby to fix the cost of repression exclusively upon the property concerned in harbouring the predatory class, viz., 1st, that of directly imposing the amount upon such property, so far as its complicity can be proved; and, 2nd, that of exempting from the necessary rates, all properties that could be shown to be wholly free from such complicity.

Of these two modes, the latter would be by far the most easy to carry out. For a direct imposition being indistinguishable from the infliction of a penalty, the burden of proof would lie upon the parties demanding such imposition; who would of course have to contend with the falsehood, concealment, evasion, and trickery of every kind, in which the wrong-doer naturally seeks refuge, and but too often with triumphant success; whilst the grant of an exemption from the rates would, on the contrary, be the conferring of a privilege, and the burden of proof would of course then lie upon the claimant for such privilege; who, unless he appeared with a clear straightforward case, would have no chance of success. Any sign of concealment, evasion, or trickery, would at once throw the claimant out of court.

Those who are practically acquainted with the difficulty of obtaining legal proof of guilt, in cases in which there is no moral doubt whatever, or none that the person accused, if innocent, could not clear up at once, will appreciate the advantage to the community of thus turning the tables upon the supporters of the criminals by whom our towns are infested; and this without any hardship; for surely those who have kept their property free from complicity with criminality, cannot have any difficulty in meeting the inquiry whether they have done so or not.

As every grant of exemption would increase the pressure upon those owners who were unentitled to it, the accumulated weight would soon force them to dispose of their interests to men who had established such title. By this process our towns would be soon purified from the predatory class. The whole host of habitual burglars, garotters, pickpockets, forgers, coiners, thieves' instrument-

makers, receivers of stolen goods, trainers of young thieves, flash housekeepers, &c., &c., &c., would be dislodged from their dens and hiding-places; and unless they took to honest courses (in doing which every hand should be stretched out to help them), they would find no shelter other than the workhouse or the gaol; nor, so long as the principle herein recommended were maintained, could they ever succeed in re-establishing themselves amongst us.

The dislodgement of so large a number of offenders, and the total stoppage of their criminal gains, would in all probability necessitate the adoption of some temporary measures to prevent their being driven to desperation. Nor should we forget that, fallen as they are, they are not the less our fellow-creatures. We have more than once been compelled, by the occurrence of violent epidemic disease, to make temporary provision for the shelter and maintenance of portions of our town population, and some analogous provision would probably meet the circumstances in view. Whatever difficulties may beset the state of transition, they could, in the nature of things, be but short-lived. The final relief would be great and permanent.

It may stimulate our zeal to call to mind that which our forefathers accomplished under analogous circumstances. The “sanctuaries” of the seventeenth century were not more alien to the ruder times of mounted highwaymen, than the existing “thieves’-districts” are to our improved civilization. Macaulay has given us an instructive account of the suppression of that frightful den of crime, the sanctuary of Whitefriars,—“*Alsatia*,” as it was called—of which Sir Walter Scott has left us so lively a picture in “*The Fortunes of Nigel*.” Some 800 known cut-throats, robbers, receivers of stolen goods, brothel-keepers, &c., had herded together in this “sanctuary,” from time out of mind; ever and anon breaking out for the purpose of murder and robbery, as opportunity offered or as their needs became pressing. At length the public patience became fairly exhausted; men aroused themselves as from a lethargy; supineness gave way to alarm and resentment; the requisite powers were obtained from the legislature, and at one single touch of a really firm hand, the ranks of scoundrelism were at once broken, and put to the rout, and the whole mass vanished as if by magic.

OPENING ADDRESS *of the* PRESIDENT *of* SECTION F (ECONOMIC SCIENCE *and* STATISTICS) *of the* BRITISH ASSOCIATION *for the* ADVANCEMENT *of* SCIENCE, *at the* THIRTY-SECOND MEETING, *at* CAMBRIDGE, *in* October, 1862. *By* EDWIN CHADWICK, ESQ., C.B.

As it has become customary in this Section, as in others, for the gentleman who fills the office which I have the honour to hold at this meeting, to open the proceedings by stating some of the views which he may entertain on the progress of the sciences in which the members specially attached to this section are the most interested, I beg leave to solicit your attention to the observations which I now submit to you in conformity with that practice.

Besides statistical science, it has been our custom to treat of economical science in its widest and most popular sense, not confining it to economy in its political relations, but treating of economy in its domestic relations, comprising house-rule, as well as what have been called burgh-rule and state-rule. It has been our practice to look to the conclusions deducible from any set of facts which may come before us, without considering of their position under any system, or their conformity to any general scientific definition. It is useless to discuss the merits of this course, for it is the only one at present practicable. On this occasion, however, I solicit your attention to some elementary questions, progressive to the formation of wide scientific principles.

Amongst the foremost popular objections to economical science represented by popular writers are these: that it does not take into account human feelings and passions, or mental pains and pleasures; —that it seeks only material wealth, no matter how obtained, and at what expense of human suffering. This allegation I shall show to be a mis-statement; but I would observe, that it might as well be objected to physiology that it does not take into account external beauty of form or of colour, which are the main objects of cultivation by the sculptor or the painter, as it is to object to economical science that, regarding immediately the material and physical objects of production, and services conducive chiefly to physical well-being, it does not occupy itself with the spiritual, and the metaphysical, or with mental pains and disabilities, which are the province of the theologian and the moralist, as political rights are the province of the politician.

Our great word and historical scene painter, my friend Mr. Car-

lisle, designates political economy as the “dismal science.” As propounded by some of its professors, reasoners of the abstract and geometrical class, from assumed data, it certainly led to some large dismal conclusions, chiefly on the population question; but on closer and more recent examination, that is to say by the close scrutiny of particulars, by exhaustive collections of them, and wider inductions from them, it will be found that those conclusions are dissipated, and others of an opposite character, more in harmony with popular sentiments and instincts and with elevated views of human progress, are confidently indicated. Another popular writer, also an able word-painter and elevated cultivator of æsthetics, Mr. Ruskin, has lately rushed amidst the economists, and taken them to task for what he considers their short-comings, because they do not, amongst other things, treat of the “roots of honour,” or of “habits of gentleness” and justice,—assuming gratuitously that those qualities are not recognized and are disparaged because they are left to be cultivated and their opposites to be dealt with by the divine, the moralist, and the jurist,—who will be found to have plenty to do for their cultivation by separate divisions of labour. Mr. Ruskin cites a declaration in favour of Truth in commercial transactions by an old Hebrew merchant to whom a statue was raised in Venice, and he cites it as if it were new to the commercial and economical transactions of our times, and at variance with political economy, which he represents as “proclaiming vociferously for the law of the universe that a buyer’s function is to cheapen and a seller’s to cheat.”

Now, I had the pleasure of the acquaintance of perhaps the most wealthy and successful merchant of the last half-century, a member of our political economy club, the late Mr. James Morrison, who assured me that the leading principles to which he owed his success in life, and which he vindicated as sound elements of economical science, were: always to consult the interests of the consumer, and not, as is the common maxim, to buy cheap and sell dear, but to sell cheap as well as to buy cheap; it being to his interest to widen the area of consumption, and to sell quickly and to the many; the next maxim as involved in the first principle—always to tell the truth, to have no shams; a rule which he confessed he found it most difficult to get his common sellers to adhere to in its integrity, yet most important for success, it being to his interest as a merchant that any ship captain might come into his warehouse and fill his ship with goods of which he had no technical knowledge, but of which he well knew that only a small profit was charged upon a close ready-money purchasing price, and that go where he would he would find nothing cheaper; it being, moreover, to the merchant’s interest that his bill of prices should be everywhere received from experience as a truth, and trustworthy evidence so far of a fair market value.

I might cite extensive testimony of the like character to show that the very labour and risks of continued deceits, however common are detrimental to the successful operation of economic principles and that sound economy is everywhere concurrent with high public morality. We may, indeed, claim from professors of high art like Mr. Ruskin, that they have yet to take into account more of the economical than they are aware of, much of the economical being immersed in the physical and material in connection with the beautiful. I remember talking with him once on his search for works of art in Venice, on which he discourses so eloquently, and, describing to him my own feelings at the filth and squalor of the population, as suppressing any of admiration for art amidst the foul and pestilential. I remember his admission that in that city the seats of ancient art were commonly centres of filth, so much so that his attendant in his explorations would sniff an ill odour, and when it was strong would say, "now we are coming to something old and fine"—meaning in art. I would submit that the nose of the attendant gave a truer indication than the eye of the painter, for the right direction of labour, which must be for works of purification to produce the truly beautiful, which is always connected with the economical. To do him justice, however, I might claim the honour of having him as a disciple, even as an economist in this,—that he now recognises the laws of health and the exercises enjoined by them (which are the true foundations of the beautiful), as sources of national economy. I cite his pictorial expression of the conclusion, "That it may be discovered that the true veins of wealth are purple, and not in rock but in flesh; perhaps even that the final outcome and consummation of all wealth is in producing as many as possible of full-breathed, bright-eyed, and happy-hearted human creatures."

Adopting for myself this statement of the end of economical science, and adopting it not hypothetically but positively, yet as the artist for his purpose views the human being as a subject for the cultivation of the beautiful—as the physiologist for the cultivation of his art views him solely as a material organism, so the economist for the advancement of his science may well treat the human being simply as an investment of capital, in productive force. Taking this view and confining our consideration to the value of a human being simply as an investment of capital, I apprehend that that value, and the economical principles would be evolved by the inquiries necessary to determine the compensation due upon anyone killed by a railway accident. If it be a child, how much capital has been invested in it; that is to say, how much must it have cost to rear it? How much capital must be expended to rear one of the like? What were the chances of the duration of its life and working ability which are determinable by the

insurance table? What would be the future wages of a labourer of the class during that time? What are his possible savings upon those wages over and above absolute necessities of life?—the total of which would represent the value of the investment, for which compensation would be due, apart from the pains of the loss inflicted upon the survivors, apart, also, from what may be deemed the politico-economical value of the individual, the profit which is due to the capitalist for his labour and risk in finding work, and the payment for the capital advanced as wages.

Now, on the actual contract price in England of raising an orphan child, in a well administered public institution, the actual cost, in food, clothing, and labour, would not be less than 4s. 4d. per week. Its education and physical training would be about 4d. a-week more, making a total of 12l. 2s. 6d. per annum. At 11 years of age, when the child can generally earn its own food and clothing, it may be taken as an investment of 130l., or the value, say, of a team of four first-class farm horses, or of a hunter; or at 21 years of age it would be an investment of about 250l., or about as much as two hunters. Economically he may be viewed as an amount of available productive power. But in the existing insanitary condition of towns and of habitations, the expenditure in raising the one individual does not represent the whole cost of raising that power. In towns in a low sanitary condition, large masses of children are born only to die before the attainment of their maturity. Dr. Farr will support me in showing that in such towns as Manchester, Glasgow, and Liverpool, one-half the children born are in their graves before their fifth year, and much more than one-half by their twentieth year. The expense of the productive force of one adult worker is under such conditions that of rearing two children for each worker obtained. The domestic and political economy of these conditions is much the same as the agricultural (or hunting) economy would be, if to obtain one working horse two colts had to be reared. The investment on the young artisan, at the end of his apprenticeship, may under these conditions of waste be regarded as equivalent to that in three hunters.

But for how long will that investment continue to be productive? The unproductive investment in early childhood must be distributed over the whole period of his working ability. If the duration of that ability be short, the annual instalment of capital in rearing, to be wiped off by an annual instalment of repayment, must be heavy; if the duration of the working ability be long, it will be light. To the general population of Manchester it would be about twenty-eight years, to the artisan class especially it would be twenty-five years, whilst in less unfavourable sanitary conditions, taking one in the same county, Ulverstone for example, it would be forty years.

Now, it would be of great importance to a man of the wages class

(as well as to most of us) if he could be got to consider himself as an investment, and how much capital there is in him, and of the relation of his own labour to his own capital, and how it may be economised. When the truths of economic science gleam upon his mind, as it may be expected to do with the progress of public information; when he is made aware, amongst other things for the economy of that capital, that the cheapest tenements are often the dearest to inhabit; that to settle in a badly administered city, to live in an ill-conditioned house, where he has no proper water supply or means of cleanliness, or to work in a badly ventilated shop, will, in the long run, subject him and his family to double the amount of expensive sickness that he would incur in a rural or a better conditioned district; will subject him to the loss of ten or twelve years of the duration of working ability; will at the lowest estimate subject him to an aggregate loss of 200*l.* of the value of his labour; will deprive him, in all probability, of the means of acquiring the last consolation of old age—easy and respectable independence, and rest upon his savings from labour—then he may be expected to resist the temptations from increased wages to settle in such place, or to insist upon conditions suitable to his labour, or the due economy of his investment; then we may expect that under the pressure of economic elements, the attention of manufacturers will be directed to the economic conditions of work; then it will be that owners of inferior tenements, and landlords who are corporations, will be made aware of the coincidence of interest with duty, that their rents are better paid when there are fewer visitations of excessive sickness and premature mortality amongst their tenants; then may be yielded to economic principles that action for which appeals have been made in vain to the moral sentiments.

The annual excess of preventible deaths beyond an imperfect standard, in the county of Lancaster, is upwards of ten thousand adults per annum, who lose each more than ten years of working ability; the cost of the lost labour cannot be estimated at less than between three and four millions per annum; of the excess in sickness, nearly 400,000*l.* per annum; of the excessive funerals, upwards of 70,000*l.* per annum; of the whole county, upwards of four millions per annum. The data for this estimate were checked by Dr. Lyon Playfair, and were given in his report to the Health of Towns Commission, and have not been controverted. In my report of 1842 on the sanitary condition of the labouring population, as displaying the effect of the overcrowding, or the bad ventilation of places of work, I showed that when the workpeople were discharged from them in periods of distress, fever, instead of increasing, as was once the hypothesis, diminished, and fever wards were almost emptied, the people living upon simple food being in search of work abroad in the less

impure air of the streets. In accordance with the observations which I then made, in the present seats of the most intense manufacturing distress, the average sickness and mortality, instead of being increased, has, it has been noted with great surprise, diminished. The very town where we were assembled (Cambridge) may be cited as an example, though in a lower degree, of the waste of capital to an extent of upwards of 20,000*l.* per annum under the same heads; to the extent, as I would inform the townspeople, of not less than 20,000*l.* per annum as compared with the rate of sickness and mortality prevalent in the district of Linton and Newmarket, a loss due to the neglect of such sanitary measures as have been taken in the neighbouring city of Ely, in the newly and properly drained portions of which the death-rate has been reduced nearly one-third, and that too by measures which leave much to do, but which yet give the inhabitants, as it were, a jubilee every third year in which there are no cases of sickness and no deaths.

The annual waste of capital in England and Wales, from the loss of labour, from excessive sickness and premature mortality, I estimate at the very least at between fourteen and fifteen millions per annum.

As illustrative of the economy of prevention, I cite the following from a paper which I submitted to Lord Palmerston, in 1856, previously to the issue of the army sanitary commission, and which I refer to now, because the reduction then spoken of as an instalment has subsequently, and by as yet partial measures, been practically accomplished. I submit it as applicable in principle of economy to the labouring population. "The expense of every
" trained soldier—and the greater proportion of the deaths appears
" usually to occur after the period of training has been completed—
" is usually stated at 100*l.* to 120*l.* per man; ten lives per 1,000 of
" mean force saved will save the public 1,000*l.* per annum. The
" reduction of the non-effective period of service, by the reduction of
" the average period of sickness from fifteen days to six or to five,
" the reduction of the numbers constantly in the hospital from an
" average of forty-six to fifteen, will be equivalent to an increase
" of the effective force by 30 per 1,000 of mean force, or a saving of
" expense proportionate to the numbers of the men to the expenses
" of the whole regiment; the total sum which may be saved by sanitary measures would be equal to between 1,000*l.* and 2,000*l.* per
" annum per 1,000 of mean force at home or in the colonies. This,
" capitalized at 5*l.* per cent., would, were it needed, justify an expenditure of 30,000*l.* or 40,000*l.* per 1,000 of mean force for effectual
" measures of prevention." The saving by sanitary measures, as reported by the Secretary of War, is now equal to a brigade of mean force annually.

There has been a reduction of deaths from the zymotic, the fer-

menting, or foul air diseases, to less than one-quarter; of the tubercular diseases to less than one-half; of the mortality of the line, from 17·9 to 8·36 per 1,000. Here is a brief statistical display of what has been done,—made by Miss Nightingale, to whose labours, with Lord Herbert, in this special branch of sanitary service the results are pre-eminently due.

	Deaths Annually to 1,000 Living.			
	Zymotic.	Chest and Tubercular Diseases.	All other Diseases.	All Causes.
English male population, aged } 15—45, 1848—54	2·0	4·5	3·3	9·8
Infantry of line serving at } home, 1837—46	4·1	10·1	3·7	17·9
Infantry of line serving at } home, 1859—60—61	0·96	4·2	3·4	8·56

Now, each head of the reduction of disease may be treated by the economist as a reduction of expense—a staying of waste. The standard of comparison, the death-rate prevalent amongst the ordinary population, I aver, is in excess full one-half beyond what is obtainable, by means which are so certain, that their attainment and maintenance may safely be made matter of contract as for the preservation of investments. We give these facts in aid of the divine and the moralist. Every unit of such statistical figures as those cited, involves a case of pain in the being whose power has been stricken down, of mental suffering in survivors, and of diminished estimation of life on the parts of those who witnessed it going on to the end, which the orator and the man of feeling, may well pourtray; and let him do his separate duty by coming forward and pourtraying it, and exhorting governors and the representatives to their duties of not letting ill alone, of not giving the representations of evil the go-by, —of not for the sake of selfish ease, violating their moral duties to investigate and forward the means of prevention. Meanwhile, the economic administrator and the legislator, whose qualification it is pre-eminently to be an economist, should strive at his great task, which is, to unite interest—personal and pecuniary interest—in support of that duty, which it is the separate business of the moralist, and the right exercise of the pulpit to preach. Where that union can be effected its operation is most potent and complete.

I have not time, nor would this be the occasion for the development of that problem. I will only give an illustrative example of that union. At the commencement of the system of transportation

there was a severe mortality amongst the convicts. At first, instances occurred of as many as one-half being thrown overboard during the passage. Humanity was appealed to in vain, and the sufferings and loss were held to in the natural and unavoidable order of things until the economic principle was applied of contracting for results. Instead of contracts being made for the numbers embarked, payment was contracted for only for each person landed alive. This opened the eyes of shippers to the advantages of practical applications of sanitary science, and they engaged medical men and gave them means, and gave them, too, an interest in its instrumentary applications. The result was a reduction of the sickness and mortality amongst persons of bad lives to about $1\frac{1}{2}$ per cent. I took some pains to get the principle applied to the protection of pauper emigrants, and with the like satisfactory result. In these cases economy beat sentiment and benevolence. It evoked unwonted care for the passengers, and secured to every poor man who died at least one sincere mourner. When the sentimentalist and the moralist fails, he will have as a last resource to call in the aid of the economist, who has in some instances proved the power of his art to draw iron tears from the cheeks of a city Plutus.

Within the limits of the duration in years, of the productive power of the investment in a labouring man, economical science has to estimate also the degrees of intensity of its application during hours of the day as well as during the days of the year. I have paid much attention to this topic, and collected accounts from the employers of labour in different countries. From these I am enabled to state that, in general, and with few and rare exceptions, the British labourer is during the working hours of the day the foremost in the world. Two English labourers or artisans are proved to be equal in productive power to three Danes, or three Norwegians, or three Swedes, or three Norman labourers, or three Germans. English miners in Germany and in Sweden, though paid much higher wages than the natives, do proportionately more work in less time. Why this should generally be so as against people of kindred races living under different political and social conditions, is a question which, as it would require much local investigation, I have not attempted to solve.

But the advantage as against other races is yet greater. Mr. Robert Rawlinson, our sanitary engineer, who had experience of the native workmen, artisans, and labourers in the Crimea and in Turkey, assures me that it would have been cheap to have exported English artisans at 5s. a-day, as against Croats, even at 6*d.* a-day, and so with other classes of labourers. Mr. Hawkshaw, the president of the Civil Engineers, who is conducting extensive railway works in Russia, tells me that he derives no pecuniary advantage from the best of the

cheap serf labour there, whether common labourers or artisans. From India reports of engineers are similar in relation to the larger proportion of work. As against serf labour in Poland, a Polish nobleman informed me that he found that the labour of five serfs was about equal to that of two English agricultural labourers. A shipowner, who had ships repaired in almost every port in the world states that he has nowhere found the work done cheaper than by the dearer labour in the British ports. Mr. Ruskin talks of the power of wealth being "greater or less in direct proportion to the poverty of the men over whom it is exercised." He talks of "masters never allowing servants to be idle," "feeding them as poorly and lodging them as ill as they will endure," and holds up this course as being in accordance with economic principle. If he would make inquiry of the most successful employers of labour—those whose pay is chiefly piecework, he would learn that they prefer those labourers who earn the most wages, who therefore are the least poor; and that they find these the most profitable to them—time of execution, as well as the convenience of the direction of the few skilled and trustworthy, instead of the many unskilled and less trustworthy being taken into account. Whatsoever may be the supposed interest of any employer in poor labour, he will find that he will not get the best results without the labourer having some interest in it and a power of obtaining it which are not given by abject poverty. In fact, the rationale is, as Mr. Whitworth expressed it to me in respect to his horses, of which he takes great care, that he could not afford to work his machines with a horse that cost less than thirty pounds, or that ate less than eighteen pounds weight of oats a day.

But taking the general fact to be as I have stated it—that the productive power of two British labourers is equal to that of any three on the Continent, it is important that the economical principle involved in that fact should be understood and appreciated. In the economical aspect in which I am considering labourers simply as investments, as capitals—inasmuch as by better direction two capitals are made as productive as three—as one capital is thereby saved, that is to say, the expense of the required systematic training, of the food, the clothing and the lodging, which make up the third capital; this third saved capital may be, and the bulk of it is, actually divided between the other two, in the shape of extra wages, with some extra profit to the capitalist. This third capital saved is, I conceive, the source of the animal food, the drink, and the extra stimuli, in which our labourers indulge beyond those on the Continent, which amount, according to my reckoning, to upwards of seventy millions annually, or one-third the estimated wage-fund of Great Britain. But if two capitals or two labourers are equal to three, two populations, speaking roundly, are economically equal to

three, and it may be confidently asserted that the twenty-seven millions of population of Britain are from this very cause, in economical force at least, equal to the thirty-seven millions of the population of France.

Individuals and nations have yet, as it appears to me, to be instructed by economical science on the waste of capital, not only from, misapplication during available hours, but during available days of working ability. Mr. Moses Engel, the Hebrew principal of a school for teaching the children of Jews, in speaking of the inability of parents of that community to pay for the education of their children, thus indicates the economical grounds why the Jews must, as a people relatively to such a people as the English or the North American, be always a poor people, and a badly educated people too, ignorant as well as poor. "Jews, by their religious and social distinction, are "exceptionally placed in regard to business; their religious scruples "compel them to abstain from labour on Friday evenings, Sabbaths "and festivals—say about one-fifth of the year; their respect for social "laws induces them to refrain from their occupations on Sunday. "Thus they lose about one-third of the year. Hence few Christian "masters will take Jewish apprentices, and the circle of Jewish trades "is contracted, because of a Jew's inability to compete against men "whose hours of work are so many more than his own. Hence, too, "the Jewish artisan or tradesman earns less than the Christian "artisan or tradesman; and hence arises a greater necessity for the "earnings of children; thus, Jewish children are often withdrawn from "school at nine or ten years of age; and even while supposed to be "on the school books, they are so often kept at home to assist at some "domestic or industrial labour, that they benefit but little by "education."

In France, according to Vauban, it was necessary in his time, and I am informed that in the greater part of that country it is so still, to take from the working period of the year, besides the 52 Sundays, 38 fête days, 50 days of frost, 25 days of inability from sickness, 20 days for fairs, markets, and family affairs, leaving the French workman a total of only 185 working days to his year. In some parts 62 days are put down as feast-days, and 41 days for bad weather. In Prussia there are stated to be only 220 working days to the year. In the course of some inquiries in relation to the condition of the lower classes of the population in Ireland, I was informed that there was scarcely a cottier who did not attend a market once a-week, though he had nothing to sell, nor failed to attend the monthly fairs whether he had any business there or not, nor missed attendance at any one of the funerals of persons of his class or connection, and that their wakes and funerals would consume between twenty and thirty days in the year; and that moreover he religiously

observed all the saints' days, and that these deductions made more than 100 days in the year, thus bringing the sum of the working days under bad sanitary conditions and idleness, below those of the peasantry in France, or to less than two-thirds of the working days of the English labourer.

But it may be asked of these populations, are they not, with the greater freedom from toil, less early worn out than the English labourers? Statistics answer—No. They are sooner worn out. In France as well as in Ireland the general average duration of life is lower than amongst the classes in England, and so far as I am enabled to ascertain as to the duration of peasant life, and of the agricultural classes generally, it is much lower than in England, where there is yet wide room for improvement. In those countries there is then a greater expenditure of capital to obtain a less amount of production. Viewing the labourer individually, economically, as an investment, his waste, is chiefly in the misapplication of the hours of his days, commonly to the extent of one-half the productive power; then in the misapplication of the days of his years, to the extent of not less than one-third, and in the loss of productive years of his life, to the extent of at least another third by premature disability and mortality, and that too, I repeat, as compared with a positively inferior standard. Add these economical results together, of which politicians take no notice, and I apprehend that they will of themselves make a real condition of the people question, and will account for the wretchedness of populations, independently of any conditions of political privilege to which it is common to ascribe them. I might, if there were time, present from recent accounts examples of these economical defaults, in the reported condition of the Sicilian and other Italian populations.

In England there is, I believe, on the other hand, much waste of capital as working power, by overwork, chiefly in the duration of the working hours of the day, most certainly so in relation to the labour of children, who, too, in school-time are subjected to over-mental and under-bodily work, and in the workshop to over-bodily work. When engaged under the commission of inquiry into the labour of young persons in factories, my colleague, Mr. Thomas Tooke, agreed with me in the adoption of the conclusion from the evidence, that the interference of the State was requisite to prevent the young and future working stock of the country from injury by overwork, as well as by exclusion from education by reason of overwork. We found children and young persons kept at work during the same stages as adults, which, on physiological grounds, we pronounced everywhere to be overwork and wasteful, just as it is everywhere overwork and wasteful to work a young and growing colt with and during the entire stage with a full-grown horse. We did not fail to

represent the sufferings of the children, as well as the economical grounds for legislative interference; but we were opposed on an assumed economical position, that the amount of produce from machinery was as the hours of work, however long, as was also alleged the reduction of the establishment charges on the machinery to the extent of its continuous hourly use; and it was alleged therefrom that the reduction of the hours of the children would practically occasion a corresponding reduction of the working time of the adults, and would hence incur a loss of capital.

We met this plea by a provision for working children [in double sets of half-day working time. We relied most confidently on the fact of the injury done to the children, and the waste thence arising, as grounds for interference. But our measure for interference, which was resisted on assumed economical grounds, was carried chiefly on sentimental impressions. We were prepared, nevertheless, to prove that the assumed economical ground, as to the production from machinery being as the duration of the working hours, was fallacious. We could have proved that the produce, even from the machinery called especially "self-acting," was largely dependent on attention,—on mental as well as manual labour,—that mental labour cannot be indefinitely prolonged productively; that beyond certain limits, even with the stimulus of piece-work, the labour with the so-called self-acting machines cannot be prolonged productively, as the amount of spoiled work increases and the work turned off diminishes.

Experience of these economical principles, as applied to labour in factories, has fully established them, for, from the improved attention during the reduced hours, and the better sustained labour in the reduced hours, the former amount of production has, on the whole, been maintained. Lancashire, with restricted child labour and short hours, now fears no competition with the unregulated labour of Austria, with its so-called cheap labour and long hours, of fourteen or fifteen hours a-day. Foreign manufacturing capitalists in Alsace and the Tyrol, have declared to me that if they had capital to invest *de novo* in manufactures, they would prefer to invest in Manchester. The protection of children's labour in the growing stage has decidedly arrested grievous physical deterioration and waste, and there are fewer deformed and maimed young persons there of the rising generation. Manufacturers who were formerly opposed to the principles of the Factory Act, now urge its general extension to agricultural as well as to mining and all other labour. I am not particularly informed on the early closing movement, but I have been assured, in respect to some branches of trade, that the reduced hours of business have led to improved methods and habits on the part of the public, so that quite as much is done as before during the longer hours.

Our overwork in England would appear to be chiefly in the hours of the working days. The appointed seventh day of rest appears to be above any economical question. Longer intervals would be insufficient; shorter, if the six days are moderately occupied, were unnecessary. At the Dublin meeting of this Section, Mr. Bianconi, the great post-horse contractor, was complimented on religious grounds for the rule he adopted to give all his horses rest on the seventh day; but he frankly disclaimed the religious motives ascribed to him, and declared that he adopted the rule because he found that by the seventh day's rest he made 11 per cent. by the improved working power and value of his horse stock. I believe that an economic reward is attendant on obedience to the command in respect to the human stock.

The most correct adjustment of human force for the most productive application, as an investment, would require considerable observation of varied sanitary and other conditions over long periods of time. Amongst the means of sustaining that force, would be what may be termed the metaphysical means;—pleasurable mental excitement accompanying the work, or in the results. On physical means alone, as food, clothing, housing, however good the work after a time often goes on heavily, wearily, slowly, and it requires mental stimuli to sustain the bodily energy. Thus a band, when a march flags, gives relief and force. I was once present at a discussion between two engineers, who had large bodies of navvies and artisans camped out for work in isolated districts, as to the results and comparative economic value of their respective methods of providing mental relief and stimuli to work; the one had hired musicians and dancers, the other scripture readers and animating or sensation preachers,—each method being treated with perfect indifference as to choice, except as a means of productive force and profit on capital in the work done. In weaving shops and in places of semi-automatic work, it is I am informed becoming customary to employ readers to read novels, works of imagination and histories, and matters of stirring interest, which is found to give to the hand, somewhat of the life energy and regularity of movement, which the band gives to the march. Hence the “dismal science,” to use Mr. Carlyle's phrase, may find a place for him, and for imaginative writers, like our friends Mr. Dickens, Mr. Thackeray, and Mr. Ruskin, rivals to bandsmen as suppliers of stimuli to force,—enlivenment to work, and of aid, which they may not have intended,—to capital and production.

Amongst the means to sustain force, are some physical means of which physiology gives information. It may be set down as an economic axiom, that whatsoever else they denote,—filth and squalor in a class or population, denote loss of power and waste, and amongst

other things, an immediate waste of food to produce a given amount of force. A friend of mine, a general, who was beleagured with a battalion, in Spain, had his men put upon short rations. To occupy and amuse them, he sent them to a neighbouring river to bathe daily, and he found what he had not expected, that under this course of daily ablution, his men were in better force, that his power was greater, on their short rations, than other men were on their full rations. It is beginning to be found out that cleanliness is profitable for farming stock. Experiments are related of the comparative growth of pigs, unwashed and uncleansed, as compared with pigs of which the skins are washed and fed on the same sorts and quantities of food, and the growth of the washed was nearly one-fifth greater than of the unwashed, and in other instances the gain from cleanliness was greater, and so with horses. Amongst soldiers of the line who have only hands and face washing provided for and the death-rate is upwards of 17 per 1,000. When sent into prisons where there is a far lower diet, sometimes exclusively vegetable, and without beer or spirits, but where regular head to foot ablution, and cleanliness of clothes as well as of person is enforced, and there their health is vastly increased, and the death-rate is reduced to $2\frac{1}{2}$ per 1,000. I believe that a large proportion of the superior health obtained in prisons on very low diets, some of them costing not more than fifteen or eighteen pence per head per week, is to be ascribed to the complete personal purification enforced. Instances have come under my observation in schools and public institutions, where on ventilation and pure air being introduced, there has been a reduction of the sickness and death-rate by one-third, and on the introduction and daily enforcement of regular daily ablution, there has been a reduction of the sickness and death-rate by nearly another third, the food being unchanged. I believe that a large proportion of the greater duration of life amongst the higher classes, is due simply to superior personal cleanliness. I am confident that I shall be justified in stating, that beyond any saving in the power of food, that the practice of complete personal cleanliness, would be found to be a great economy, and that the regular daily head to foot ablution and purification of the person would alone add, at least one-fifth to the duration of the economic force of the population. Economic science, consulting sanitary science, would thus achieve, Mr. Ruskin's aspiration, of which the success would be visibly denoted, by a well-formed and rosy-cheeked, as well as "full-breathed, bright-eyed, and happy-hearted population."

As an important part of this topic, considering the child and the man as an investment, I am anxious at this time to direct attention to the economic elements involved in popular elementary education. Hitherto popular education has been advocated, and rightly, on

religious and moral grounds. I wish to point out the support that economic science may give to them.

Considering a child to be for our economical purposes an investment, the elementary training and education are necessary, to increase the efficiency and productiveness of the capital employed. I have been at much pains on this point to ascertain from employers the comparative efficiency and value of educated and uneducated labourers, and I find one conclusion unanimously agreed to on the subject by all intelligent witnesses of wide experience and observation;—that education even in its present rude and in many respects objectionable elementary condition, is highly remunerative. Employers who have been at the expense of schools on high religious and social grounds, concur in saying that success is great on the lower economical grounds. In agriculture, intelligent workmasters are aware of the wide difference in result and value, between educated and uneducated, intelligent and unintelligent, labour, in the old and ordinary processes. But the expense of ignorance is the greatest in the obstructions which it presents to the introduction of machines, by which wages are augmented, whilst labour is saved. Wheresoever machinery is introduced, increased education and intelligence is proved to be necessary to the production of its best effect. I have been assured by experienced mechanics, that notwithstanding the progress of machinery in agriculture, there is probably as much sound, practical labour-saving invention and machinery unused, as there is used, and that it is unused solely in consequence of the ignorance and incompetency of the workpeople. In manufactures, the deplorable deaths and losses which occur in the application of steam-power, have been long ascribed, by Mr. William Fairburn, to the want of suitable education on the part of workpeople, to render them competent for its safe—and most economical direction. Out of an average of about eleven thousand deaths, annually registered in England and Wales as from “violence,” between five and six thousand are set down by our colleague, Dr. Farr, as arising in connection with the use of machinery and steam-power. When the cases are inquired into, it is apparent that the greater proportion of them have been occasioned by ignorance and recklessness. Railway managers complain in respect to the frightful accidents occurring, of the stupidity of their agents and labourers as the cause, and of the extreme difficulty of getting those who have little to do, to do that little well. We may judge of the importance to our prosperity, of the efficient direction of labour-saving power, by the fact, that every nominal horse-power is equal to the saving of the manual labour of about seven men. The four hundred thousand hands in the cotton factories have, according to the last returns, the aid of two hundred and seventy thousand horse-power, which is equal to the manual

labour of a population of nineteen hundred thousand labourers, but by working, as may safely be done under competent direction, at high-pressure, the nominal horse-power may be doubled and trebled. This is often done, but not under the intelligent direction required, and hence frequent terrible disasters. One intelligent stoker will work the same engine with from one-third to one-half the amount of coal that another will consume; one will nearly prevent all smoke, whilst another will consume more coal and keep the neighbourhood under a cloud of smoke and filth with the same apparatus. The great mass of smoke which beclouds manufacturing towns betokens ignorance and waste. Those who talk of the dangers of over education, are grossly ill informed, and are themselves so far under educated. But we may find important evidence of the value of education, where it has heretofore been deemed by members of the legislature to be the least necessary, where it has been supposed that mere machines are required, namely in the naval and the military source of employ. Naval officers attest the fact of the greater efficiency of educated as compared with uneducated seamen, chiefly in this, that the intelligent educated seamen, require less expensive superintendence by officers, and that fewer men can be trusted for acting together. Some officers say they would work a ship with a fifth less; others with a fourth less; others with a third less of the more educated, as compared with uneducated seamen. In the army, officers, more especially the superior non-commissioned officers, who come into the closest contact with the privates, give similar testimony. Sir John Burgoyne, maintains that the sapper, who is an artisan, with some education, is, for the ordinary purposes of war, equal to three common linesmen, and is economical at his additional pay. In the new school at Hythe, as well as at the school for naval gunnery, the success in shooting is with classes almost as the education of those classes. The effect of the general extension of elementary education, even in its present condition, would be to bring up the whole of the ranks to the efficiency of those of them who have the best common elementary education, even such as that is,—the non-commissioned officers, and it would be amongst civilians to bring up the entire body of them to at least the efficiency of the better educated of themselves,—the foremen. Let any one who has been in a position of civil or military command, and who knows those sound, trustworthy, and most excellent classes, the non-commissioned officers and foremen, estimate what that economical advance would be—a manufactory of foremen as working men,—a regiment of non-commissioned officers as privates. Amongst the economical elements of sound education, are the saving of the labour and expense of commands, and of superintendence,—saving of waste from untrustworthiness,—from blundering, from wantonness, and the misdirection

of force to the object in view;—saving the waste of time in learning new occupations, or new processes—a most important quality in our changing conditions of labour markets, as we may now see on a large scale in the north. A policeman who is an educated man (as also a volunteer), learns the military drill in weeks, against the months occupied by the uneducated labourer; and so with other changes of the application of capital or productive force.

With all this gain, however, from the better education as now conducted, I have impeached it for waste before competent educationists, before Lord Brougham, and before French, and Austrian, and other education commissioners sent over to this country to examine our elementary education. I have challenged it for waste and grievous injury—bodily done by over sedentary constraint to double the extent of time at which the same amount of instruction is, under the half-school-time system, imparted;—for waste by the injury done by exclusion from necessary exercise, and exclusion from productive occupation or necessary practice towards it, during half-days, or on alternate days, from the tenth to the thirteenth year. On a great mass of evidence Lord Brougham has declared the impeachment to be well founded; or, perhaps I might put it less objectionably, that the possibility of considerable elementary improvement proved. M. Rapet, the inspector of elementary schools in France, and one of the most laborious and successful practical educationists in Europe, has expressed to me his concurrence with the English witnesses, that all the elementary book instruction which children of the ages for primary school are competent to receive, may be given in about three hours daily, if those hours be well employed. Mr. Edward Ducpetiaux, the inspector of the reformatory and industrial schools in Belgium, on the experience of those same schools, where the mental labour is little more than two hours a-day, and the attainments of the children quite equal to those of the long-time schools, expresses a similar conviction, and that the present long school-hours are a cruelty as well as a waste; and I anticipate that the conclusions of other foreign education commissioners, who have examined some of the boarding half-time schools in England, will be similar. I propose to substitute, for the excess of sedentary occupation, physical training, including the military drill; and I find that that drill may be imparted to a hundred individuals in the infantile and juvenile stages, at the expense of keeping and imparting the drill to a single recruit in the adult stage. If from every hundred children so drilled in early life, the Government obtain only two or three recruits, it will be amply remunerated for the expenditure in the physical training of the hundred.

But on the practical testimony of such men as the distinguished members of this association, large employers of labour, Mr. W. Fair-

burn and Mr. Whitworth, it is established that for all ordinary civil labour, four partially trained or drilled men are as efficient as five who are undrilled. In other words, considering the child as an investment, for a trifling expense of about one pound per head, the productive power of that investment may, by physical training, be augmented by one-fifth for the whole period of working ability. Professor Laisne, an eminent professor of gymnastics in France, says that I understate the gain of power when I state it at one-fifth;—and that, by early and complete physical training, speaking on his experience of a French population, it is practicable to impart to three the working power of five. Taking it, however, at one-fifth, which I believe is an under-statement, a gain of one-fifth, upon our previous gain of one-third of the producing power of our population, as compared with continental nations of which I have spoken, is a gain upon that of the productive power of a fifth more of population, say of about two Scotlands or of two Lancashires, without the expense of educating them, feeding, clothing, housing, and administering their public affairs. Economically it is equivalent to an addition of one-fifth of the wage fund of the country, which Mr. Newmarch, with others, estimates at two hundred millions per annum. If it be examined properly in the several primary economical aspects, the refusal of any sum of money which has been talked of by Mr. Horace Mann or others, as requisite for the attainment of a complete education at the public expense, the withholding it will be found to be of the lowest financial imbecility and the wildest waste;—an economy which cannot sacrifice one for a sure gain of ten! But in my view no additional grants are needed, only a better administration of the existing expenditure on education, by which a much larger population may be educated well than is now educated ill, and with extensive physical injury.

I would now offer exemplifications of the concurrence of economic principle in support of religious and moral principle in public education. Treating each child as an investment of capital to be applied productively in honest industry, it is a total loss if he fail from moral defaults. If he turn mendicant, pauper, or thief, he will still levy a maintenance on the public; as a thief most wastefully by spoil, as a criminal in prison or in convict establishments, he will be kept unproductively, generally at double the expense of maintaining a pauper. The insurance table would give him, from the tenth year, the chances of forty years of life and waste, and this waste would be under-estimated at the keep of a pauper, or a total loss of 480*l.* on every case of failure. As a matter of fact coming within my own personal investigations under the Poor Law Commission of Inquiry, not above one-third of the children reared in the old parish workhouses with adult paupers, after leaving the workhouses, could be

traced into respectable service in self-supporting conditions, and where the old educational conditions are permitted to continue, there is a total loss of two out of every three investments. By an increase of expenditure for an improved teaching power, by trained teachers in many of the unions, these losses have been considerably diminished, but in the schools for district of unions in which the children are kept free from the influence of adult paupers, where a higher order of educational power is employed, though at a reduced rate of expense—where there is physical training, with the military drill, and sometimes the naval drill,—there the moral features of able-bodied children, the failures to the extent of disqualification for respectable employment are reduced to within 2 per cent. ; to 2 per cent. of insurance charge upon the investment as against a previous rate of 60 per cent. of failures.

The case of the Royal Military Asylum, Chelsea, for the children of soldiers, which is a school of mixed physical and mental training, may be presented as another example of educational power and economy in result. In the investigation of the sources of juvenile delinquency or of mendicancy, and the parentage of the delinquents, one common answer was “Father a soldier” or “a sailor,” “mother dead,” or “mother unable to maintain him,”—“deserted;” and there cannot be a doubt that, in the absence of any care or provision for that class of children, the great mass of them must be economically total losses of capital. The following are the results of the returns of their characters from the commanding officers of the regiments which they have joined:—out of 376 children, 87 were returned as exemplary, 261 as good, 23 as indifferent, and only 5 as bad. But equally important is the evidence of the increased value given to the investments by good training, including the physical as well as the mental training, as displayed in the ranks attained by a large proportion of the children, and those ranks denoting the increased value which may be imparted to the investments by improved training. Twelve were staff sergeants, 25 sergeants, 32 corporals, 95 trumpeters or drummers, and 210 as privates. Out of this school seventeen had become commissioned officers. I attach much importance to schools of this description, as imparting with the physical training, those moral virtues, or speaking economically, those values implied in the term discipline, attention, prompt and exact obedience, patience, self-restraint, so important for productive applications. I am glad to find that his Royal Highness the Duke of Cambridge and the Council of Military Education are in advance in educational improvement, as they have ordered a reduction of the hours of sedentary application to an average of about three hours daily, and as the head master assured us on a recent visit with foreign commissioners, without any reduction of the

amount of mental attainment within the same periods in week or months.

Another school, the Naval School at Greenwich, I would cite as an example of the economical value of good teaching power, as proved by rare statistical evidence—for it is rare to get direct statistical evidence of the results of any particular course of education, or of education in general, as there is no systematic outlook on the career of the scholars and the results after they leave school. In respect of the civil district orphan schools, the results are ascertained by the inquiries of chaplains at their places of service. In the instances to which I have last referred, the results are ascertained by regular returns from the commanding officers. Some years ago, when the education given at the Naval School, at Greenwich, was on an ignorant notion of a low education and training being all that was requisite for a sailor;—then, there was great moral disorder, great waste, as shown by desertions. The statistics with which I have been favoured by the Reverend Mr. Fisher, the principal of the school, made up from the officers' returns for a series of years, and the school returns of intellectual progress, prove that the rise of intellectual improvement is accompanied by a closely corresponding rise in moral and also in economical result, by fewer or no desertions, by the advancement of the value of service obtained—as shown by the increased proportion of petty officers, and the appearance from amongst them of superior officers.

The general economical deduction from such evidence, is, that were the same methods of physical and mental training made general, as they might be, we should, in this special service as in the civil service, get equal or greater power with from one-fourth to one-third fewer men to enlist, feed, clothe, carry, and pension on retirement, which would be much longer deferred,—and consequently that we could afford to pay them better, and could better compete for voluntary enlistment with the civil service market. The progress of mechanical improvement in gunnery, with which it is the province of the mechanical section to deal with, as members of that section specially conversant with the topic agree, is to give greater power to fewer men, with higher aptitudes,—such aptitudes as sound physical and mental training alone will ensure. The tendency of those improvements is to give the battle to economic science, husbanding and wielding capital, with the aid of mechanical means, applied by skilled artisans, as engineers, under scientific commands. Educational statistics, such as those to which I have referred, demonstrate the practicability of completely abolishing the whole of that waste incurred by juvenile mendicancy and delinquency, and the great mass of habitual delinquency. So certain are the effects of the training and educational power as applied under the half-school time system,

that contracts might be made for the attainment of economical as well as moral results in these respects. Under existing circumstances, it is well to subscribe to reformatories as to hospitals for the treatment of the sick, but giving exclusive attention to them is like giving exclusive attention to the foundation and maintenance of hospitals for the alleviation of marsh and foul air diseases, without regard to the drainage of the marshes, or to the removal of the sources of the foul air whence the diseases arise.

The treatment of the stock of labour of the country as an investment, and of the chief conditions by which the productive application of that investment is diminished, or the capital wasted, would be incomplete, if we did not refer to the waste of the stock by excessive standing armies in time of peace, not to speak of wars. Armies have an economical value, as hedges necessary for the protection of production, but fields may be wastefully hedged to the injury of production. The conditions which withdrew upwards of 400,000 men from productive industry in France, 350,000 in Austria, 200,000 in Prussia, always in barrack or camp, and others in reserve, and a total of upwards of three millions of men as peace establishments in Europe, are conditions on which economists of all nations may be called upon to enlighten peoples. England has by her comparative economies in respect to military establishments, a store of power, from the consequent accumulation of capital, to get up military force when required to sustain war. In an economical point of view our volunteer movement is of great value, as supplying a better defensive force than old soldiers were inclined to admit, as diminishing the extent of need of a standing army, and as supplying this force without interfering with productive industry, and, indeed, in respect to large numbers engaged in sedentary occupations, favouring that industry, by giving the young the healthful exercise of which is requisite to the development and maintenance of their civil, productive, and economical power and aptitudes.

In many respects the volunteer movement is a sanitary as well as an economic movement. But does it not commend itself, as an economic measure, to make a general public provision for such military training, at those periods when all authorities acknowledge it to be most efficient, namely, the infantile and juvenile periods, the school periods, when it not only does not interfere with the productive industry of the nation, but is in itself a most necessary and powerful preparation for it? To the economists of France we may appeal for representations against the waste which prevails there, and justifies or provokes the like waste of the labour stock of surrounding nations. To them it may be pointed out for consideration, that one year's cost of each soldier would subsoil-drain five acres of land permanently, and would repay the cost in five years by

extra production; that one year's keep of every regiment would subsoil-drain more than two hundred and fifty miles of road, and serve as outfalls for the subsoil drainage of the adjacent fields, which require drainage through a large part of France. Their yield of wheat does not average more than from thirteen to fifteen bushels an acre, with all their advantages of soil and climate; ours in the corn-growing districts being double that. I would venture to propose to our gallant neighbours the complete conquest of the soil of France itself,—it being economically, a more glorious achievement to double the production on their own soil, than to double the area of their dominion by conquest, even if modern civilization allowed them to clear off existing owners and occupiers from the country conquered. The annual cost of the keep of two soldiers for a-year, would provide permanent works of water supply and drainage (including the substitution of water-closets for the pestilential cess-pools) for two houses,—would reduce the sickness and death-rate of the inmates by one-third. The expense of one year's keep of one-tenth of their army, or fifty thousand men, would render this permanent service to every house in Paris, and would annually save eight or ten thousand of the population of that metropolis from perishing by foul air diseases. So would the expense of two iron-clad steamers.

The Emperor has expressed strong wishes for the improvement of the sanitary condition of the population, but his wishes have not been properly seconded by executive officers or by the legislature. Forty per cent. of the population in France can neither read nor write, and are plunged in the darkest ignorance. The expense of keep of one soldier for one year would train and educate three children for life. The keep of one regiment of one thousand men for a-year, would serve as a foundation for the perpetual elementary physical and mental training of as many children. When we remember that upwards of three millions of men are withdrawn in the prime of life from productive industry, in Europe, at an annual direct charge of upwards of 2,600 millions of francs, as estimated by M. Block, or as estimated by the Baron Czernig at 816 millions of Austrian florins per annum, and when it is considered that the loss to productive industry must, as estimated, be an almost equivalent amount for the maintenance of mutually menacing forces, we may imagine from such dreadful waste, the vast gain to be derived from the prevalence of principles of economic science amongst peoples, and thence in governments.

The appointed time only enables me develop incompletely the rudimentary principles of economy which my investigations have led me to consider applicable to the labourer, treating him, as I promised, as an investment of capital. I shall have done something if I have

increased the conception of the value of the material which we possess as compared with other nations, and drawn attention to the conditions by which the productive power of that material and great source of national wealth is impaired, viz.,—the conditions unfavourable to his growth,—to his health,—to the amount and duration of his force—to the waste of his power, from want of education and from misdirection, and from want of intelligent aptitudes—to the waste from over bodily work and under mental work, as well as from over mental work and under bodily work in the school period. These conditions may be modified or extended as economical conditions, but it will not be by meditations or abstract reasonings in the closet, but by direct observation in the field or in the workshop, by collecting the experience of leaders of industry, such as Mr. Whitworth and Mr. Fairbairn in the mechanical section; by collecting in Section D the observations of Professor Owen, and the other professors of physiology, which has an intimate connexion with economical science, in dealing with its source of force for production. Having made collections of facts from those sources, economic science and statistics will weigh, and enumerate, and give a money account of them. To those reverend professors and members of this Hall and University, by whose attendance we are honoured, I should have been glad to have submitted more fully the amount of aid they will derive from the concurrence of sound economic science, as developed by independent investigation, with those elementary principles of morals and religion which it is their province to maintain and advance. I might have shown at greater length, that indolence and filth and squalor always involve sin as well as waste, and that sin always involves economic waste; that the moral elements are always involved inextricably in the material the physical and the economical, and cannot be long advanced independently of them;—that, whilst for the purpose of investigation, it may be convenient to treat the economic apart from the moral elements, they must for the purpose of public instruction and most successful application, be regarded and treated in combination.

BRITISH ASSOCIATION, 1862.

THIRTY-SECOND *Meeting of the* BRITISH ASSOCIATION *for the*
Advancement of Science, held at CAMBRIDGE, 1st—8th October,
 1862.

Section (F).—Economic Science and Statistics.

President.—EDWIN CHADWICK, C.B.

Vice-Presidents.—Colonel Sykes, M.P., F.R.S.; William Tite, M.P., F.R.S.; Thomas Webster, M.A., F.R.S.; James Heywood, M.A., F.R.S.

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The following Papers occupied the attention of the Section:—

Thursday, 2nd October, 1862.

President's Address.

Rev. Vernon Harcourt, M.A.—Report of the Committee on Technical and Scientific Evidence in Courts of Law.

Charles M. Willich.—On Expectation of Life.

Rev. George Fisher, M.A., F.R.S.—On the Numerical Mode of Estimating Educational Qualifications, as pursued at the Greenwich Hospital School.

Friday, 3rd October, 1862.

Henry Fawcett, M.A.—On the Economic Effects of Recent Gold Discoveries.

Frederick Purdy.—On Local Taxation and Real Property.

W. T. Thornton.—On the Income Tax.

Richard Valpy.—The Tariffs and Trade of various Countries during the last Ten Years.

Dr. Watts.—On the Practicability of a Division of the Employers' Profits amongst the Workpeople.

Saturday, 4th October, 1862.

Frederick Purdy.—On the Pauperism and Mortality of Lancashire, &c.

J. C. Buckmaster.—On the Progress of Instruction in Elementary Science among the Industrial Classes, under the Science Minutes of the Departments of Science and Art.

James Heywood, F.R.S.—On Endowed Education and Oxford and Cambridge Fellowships.

Monday, 6th October, 1862.

Henry Dunning Macleod, B.A.—On the Definition and Nature of the Science of Political Economy.

Herman Merivale.—On the Utility of Colonization.

Dr. Smith.—A Statistical Inquiry into the prevalence of numerous Conditions affecting the Constitution of One Thousand Consumptive Persons when in Health.

Tuesday, 7th October, 1862.

The President.—On the Subject Matters and Methods of Competitive Examinations for the Public Service.

Rev. William Emery, B.D.—On the Expenses and Social Condition of University Education.

Henry Roberts, F.S.A.—Statistics which show the Increasing Circulation of a Pure and Instructive Literature adapted to the Capacities and the Means of the Labouring Population.

Rev. W. N. Molesworth, M.A.—On the Instruction and Training of the Unemployed in the Manufacturing Districts during the present Crisis.

W. Stanley Jevons, M.A.—Notice of a General Mathematical Theory of Political Economy.

W. Stanley Jevons, M.A.—On the Study of Periodic Commercial Fluctuations.

Edwin Hill.—On the Prevention of Crime.

Wednesday, 8th October, 1862.

David Chadwick.—The Cotton Famine and Substitutes for Cotton.

Henry Harben.—Some Statistics of *Zostera Marina* as a Substitute for Cotton.

MISCELLANEA.

CONTENTS:

	PAGE		PAGE
I.—The Great Crises in the History of the Cotton Trade....	527	III.—The Distress and the Resources of Lancashire, 1862. Comparative Poor Rate Expenditure, Seventeen Years, 1842-3 to 1859-60.....	535
II.—Effects of Inconvertible Paper Issues in New York, in November, 1862	532	IV.—Emigration, 1815-61.....	537
		V.—Quinquennial Analysis of the Transactions of the Metropolitan Joint Stock Banks .	538

I.—*The Great Crises in the History of the Cotton Trade.*

WE obtain the following clear and useful summary from the October number of the *Exchange* (T. Low and Co.), a monthly magazine devoted to commercial topics—and so far carried on with marked ability:—

“Throughout the whole of 1852, trade in the manufacturing districts was in a most prosperous condition; and, though the supplies of cotton were somewhat larger than the requirements of spinners, holders generally were very firm, and with a steady demand, obtained an advance of $\frac{7}{8}d.$ per lb. upon the low rates of December, 1851.

“1853 opened with good prospects and a steady demand for cotton. There was a tendency to advance in the spring, but the brewing of the Russo-Turkish question kept the market quiet. Towards the middle of the year, the falling off in the American receipts gave an upward impetus to prices, which continued until August ($6\frac{3}{4}d.$). In that month, the Eastern question becoming still further complicated, the advance was arrested, whilst later, on the stoppage of many mills at Preston, Wigan, Burnley, Bury, &c., in consequence of disputes between the operatives and their employers, added to the general distrust, and caused a decline of $\frac{1}{2}d.$ per lb., $6\frac{1}{4}d.$ being the average quotation during the remainder of the year.

“1854 opened with an impending war and a reduced American crop. These antagonistic influences neutralized each other, and prices suffered but very slight fluctuations during the first seven months of the year; but dear money, and the injurious effects of actual warfare in Europe, began to make themselves felt towards the autumn, and by the end of the year prices had declined fully $\frac{3}{4}d.$ per lb. ($5\frac{1}{2}d.$), whilst the stocks in the ports showed a decrease of about 90,000 bales as compared with December, 1843.

“With money and food dear, and an expensive war on our hands, the year 1855 was ushered in amidst gloomy forebodings; but with a reduced stock and rumours of peace in consequence of the death of the Emperor of Russia, in March trade in Manchester brightened, and prices ran up to $7d.$ per lb. between March and June. From this out, a dear and capricious money market, the rate of discount being advanced to 5 per cent. in September and 6 per cent. in October, caused the trade to purchase very sparingly, and speculators to circumscribe their operations; and by the close of the year, fair bowds could be bought at $5\frac{7}{8}d.$ per lb., having touched $5\frac{3}{4}d.$ in November. Meanwhile, the stock of cotton had been reduced to a lower point than it had reached for many years previously.

“Still, with the adverse influences above enumerated, 1856 opened with an

exceedingly dull market; but, with the commencement of peace, negotiations in January,—confidence returned, trade improved, and prices of cotton gradually advanced, closing at $7\frac{5}{8}d.$ in December, or $2d.$ per lb. higher than at the opening of the year. The upward movement continued throughout the first nine months of 1857, in consequence of the partial failure of the American crop. During the whole period, the value of money had been uniformly high; but with a flourishing trade in Manchester, and a rapidly declining stock in Liverpool, the cotton market seemed independent of all monetary considerations. In October (1857), fair uplands brought $9\frac{1}{2}d.$ per lb., and middling Orleans $9\frac{3}{8}d.$ At this juncture, the panic which had broken out in the United States, causing numerous bank suspensions and commercial failures, reached England, the money market was seriously disturbed, the bank rate was raised to 8 per cent., and general distrust ensued. About the middle of the month, the stoppage of the Liverpool Borough Bank produced an entire suspension of business, and sales of cotton were forced at a decline varying between $1d.$ and $1\frac{1}{2}d.$ per lb. In the course of the second week of November, the rate of discount was raised to 10 per cent., and the panic carried everything before it. The business done was the smallest transacted in any similar period since 1838, and a further decline of $1\frac{1}{2}d.$ per lb. was submitted to by sellers. The suspension of the Bank Act, on 12th November (1857), allayed the alarm to some extent, but the unfavourable financial advices from America, and the spread of the panic over Europe, prevented an immediate restoration of confidence; and the downward course of prices continued until early in December, when fair bowed could be purchased at $5\frac{1}{2}d.$ to $6d.$ per lb.—a decline of nearly $4d.$ per lb. from the currency of the first week of October. Some idea of the extent of the depression which had existed may be formed, when we state that for the last three months of the year, the purchases of spinners fell short of the amount of their average purchases during the previous year and nine months fully 300,000 bales. Towards the close of the year, with a reduction of the bank rate to 8 per cent. confidence began to make its appearance, more business was done, and $\frac{1}{2}d.$ to $\frac{3}{4}d.$ higher prices were current on 31st December, than at the commencement of the month.

“The improved feeling continued more or less throughout the year 1858. In January the bank rate was reduced to 6 per cent., and in February to 3 per cent.; and the imports of cotton being small, prices ran up to $8d.$, the highest point of the year. In March, the supplies were very large, and being placed on the market as soon as landed, prices declined about $1d.$ per lb.; thence to the end of the year, with an extraordinary demand for goods and yarns, especially for India and China, the variations in prices were only slight; fair uplands and middling Orleans closing at $7d.$ per lb. This year the increase in consumption was fully 14 per cent. upon that of 1857.

“1859 came in with exceedingly good prospects; a brisk trade in Manchester, a large American crop, cheap money, and abundance of food. Prices fluctuated between $6\frac{3}{4}d.$ and $7\frac{1}{2}d.$ per lb., closing at $7\frac{1}{8}d.$ in December. Thence to March, 1860, there was no change; but subsequently, with rapidly-increasing stocks, the total reaching 1,358,195 bales in June, a gradual decline set in, and continued until the end of July ($6\frac{3}{4}d.$); thence with a good demand from all classes of buyers, and adverse accounts as to the in-coming American crop, the fall, was more than recovered; the closing quotations of December being $7\frac{1}{2}d.$ per lb.

“1861 opened with a storm brewing in America, the end of which no one could then foresee, but which caused considerable anxiety as to the future supply of cotton. Still with a large present import, prices did not undergo any very material change during the first quarter of the year. But at the close of April the news of the fall of Fort Sumter was received, and consequently of the commencement of actual hostilities between North and South; then followed a rapid and continuous rise in prices until the middle of November, when fair uplands commanded $12\frac{3}{8}d.$, and middling Orleans $12d.$ per lb. For some weeks before this, ‘short time’ had been generally adopted by the trade, whereby the consumption was reduced about one-third; but the only effect produced on prices was to prevent a further advance. The market was quiet, but very sensitive—hence the panic which seized holders on

20th November, when the first news of the 'Trent' affair arrived. Sales were forced at a decline of from 1*d.* to 2*d.* per lb.; and even then the business done was exceedingly small. Towards the middle of December, the opinion gained ground that peace would be preserved, a renewed demand sprung up, and on 31st December middling Orleans were quoted once more 12*d.* per lb., and fair uplands 12 $\frac{1}{4}$ *d.* per lb., the advancing movement continued during the early part of January of the present year (1862), being further stimulated by the news of the liberation of Messrs. Mason and Slidell, received on the 8th; and on the 10th the descriptions just named were selling at 13 $\frac{5}{8}$ *d.* and 13 $\frac{3}{4}$ *d.* per lb. respectively.

"The rapid advance, however, was not responded to by the Manchester market, and the following fortnight a decline of $\frac{3}{4}$ *d.* to $\frac{7}{8}$ *d.* per lb. was submitted to by sellers. In March (1862), a further fall of $\frac{1}{2}$ *d.* took place (middling Orleans 12 $\frac{1}{4}$ *d.*, fair uplands 12 $\frac{7}{8}$ *d.* per lb.); thence with the rapid reduction of the stock, and a better trade in Manchester, prices gradually improved (uplands 13 $\frac{3}{4}$ *d.*, and Orleans 13 $\frac{1}{2}$ *d.* on 25th April). In the following week rumours of intervention on the part of England and France curtailed the inquiry, and prices fell $\frac{1}{4}$ *d.* per lb. Later on the Federal successes at Fort Donaldson, York Town, and New Orleans, added to the despondency of holders, and on 17th May, middling Orleans were sold as low as 11 $\frac{1}{2}$ *d.* per lb., being 1*d.* decline from the currency of the previous day. The reported surrounding of Richmond by the Federals, and the virtual defeat of the Confederates in consequence, led many to suppose that the close of the war was approaching; but more authentic intelligence showed that the determination to resist on the part of the South was as strong as ever; and as this idea gained currency, cotton advanced with rapid and uninterrupted strides until 18th July, when middling Orleans were quoted 18 $\frac{1}{8}$ *d.* per lb., and fair uplands 18 $\frac{1}{4}$ *d.*—the highest point they had reached since 1825. During the week ending 4th July, the advance was 2*d.* per lb. With the non-response of the Manchester market, and the accounts of Federal reverses before Richmond, the buoyancy of prices was arrested, and a slight reaction ensued."*

* "This brings us to the end of July. The reports for August and September will be found under the head 'Textiles and Textile Manufactures,' in our last and present numbers."

Import, Export, Consumption, Stock, and Average Prices of Cotton

Years.	Import (Bales).						Average Weight per Bale of Import.
	U. S.	Brazil.	Egyptian.	W. I.	E. I.	Total.	
							lbs.
1801.....	84	70	—	92	14	260	215
'02.....	107	75	—	91	8	281	215
'03.....	107	76	—	46	10	239	225
'04.....	104	48	—	86	4	242	254
'05.....	124	51	—	75	2	252	235
'06.....	125	52	—	78	8	263	217
'07.....	171	19	—	81	11	282	264
'08.....	38	50	—	67	13	168	260
'09.....	160	141	—	103	36	440	211
1810.....	247	143	—	92	79	561	236
'11.....	128	119	—	63	16	326	280
'12.....	95	99	—	64	3	261	242
'13.....	37	138	—	73	2	250	221
'14.....	48	152	—	74	14	288	210
'15.....	201	91	—	55	24	371	246
'16.....	166	123	—	49	31	369	256
'17.....	200	114	—	45	120	479	266
'18.....	208	162	—	51	248	669	263
'19.....	205	126	—	31	184	546	264
1820.....	302	181	—	31	58	572	249
'21.....	300	121	—	40	30	492	262
'22.....	330	143	—	41	19	533	267
'23.....	452	145	6	28	38	669	281
'24.....	282	143	38	26	51	540	266
'25.....	423	194	111	32	60	821	270
'26.....	396	55	48	18	65	582	295
'27.....	647	120	22	31	74	894	303
'28.....	444	167	33	20	85	749	293
'29.....	463	160	25	19	80	747	297
1830.....	618	191	15	12	35	871	300
'31.....	609	168	38	11	77	903	310
'32.....	629	115	41	8	109	902	319
'33.....	654	163	4	14	95	930	327
'34.....	734	104	7	17	89	951	337
'35.....	703	143	44	23	118	1,091	331
'36.....	765	149	35	33	219	1,201	342
'37.....	845	117	41	28	145	1,176	347
'38.....	1,025	138	30	29	107	1,429	350
'39.....	815	99	33	36	133	1,116	348
1840.....	1,238	83	38	22	216	1,599	365
'41.....	902	94	41	33	274	1,344	365
'42.....	1,013	87	20	17	256	1,393	379
'43.....	1,397	98	49	18	182	1,744	382
'44.....	1,247	113	67	17	238	1,682	383
'45.....	1,500	110	82	9	155	1,856	386
'46.....	932	84	60	9	49	1,134	386
'47.....	874	110	21	5	223	1,233	377
'48.....	1,375	100	29	8	228	1,740	395
'49.....	1,477	164	73	9	182	1,905	396

* Estimated, and inclusive of, the amount

from 1801 to 1861 (in 1000s of Bales,—thus 84 = 84,000).

Export.	Consumption.	Stock.*	Average Prices.			Years.
			Upland.	Pernam.	Surats.	
			<i>d.</i>	<i>d.</i>	<i>d.</i>	
8	225	107	18	34	16	1801
16	240	132	16	30	14	'02
7	240	124	12	26 $\frac{1}{2}$	11 $\frac{1}{2}$	'03
2	245	119	14	26	11 $\frac{1}{2}$	'04
4	250	117	16 $\frac{1}{2}$	26 $\frac{1}{2}$	14	'05
3	270	107	18 $\frac{1}{4}$	22	14 $\frac{1}{2}$	'06
10	280	99	14 $\frac{1}{2}$	21	13	'07
8	210	57	22	23	19 $\frac{1}{2}$	'08
19	310	168	20	25	18 $\frac{1}{2}$	'09
38	340	351	15 $\frac{1}{4}$	22	15	1810
6	330	340	12 $\frac{1}{5}$	19	12	'11
9	326	286	16 $\frac{3}{4}$	22	14	'12
31	373	141	23	27	17 $\frac{1}{2}$	'13
26	315	87	29 $\frac{1}{2}$	31	21	'14
34	338	86	20 $\frac{3}{4}$	28	17	'15
29	337	116	18 $\frac{1}{4}$	26	15 $\frac{1}{8}$	'16
27	407	161	20 $\frac{1}{8}$	25	17	'17
55	423	352	20	25	15 $\frac{3}{4}$	'18
67	434	397	13 $\frac{1}{2}$	18 $\frac{5}{8}$	9 $\frac{5}{8}$	'19
28	467	473	11 $\frac{1}{2}$	15 $\frac{1}{2}$	8 $\frac{1}{2}$	1820
53	499	413	9 $\frac{1}{2}$	12 $\frac{5}{8}$	8 $\frac{7}{8}$	'21
59	545	342	8 $\frac{1}{4}$	11 $\frac{1}{8}$	6 $\frac{7}{8}$	'22
35	560	416	8 $\frac{1}{4}$	12	6 $\frac{3}{4}$	'23
54	605	297	8 $\frac{1}{2}$	11 $\frac{5}{8}$	6 $\frac{5}{8}$	'24
73	600	446	11 $\frac{5}{8}$	15 $\frac{1}{8}$	8 $\frac{7}{8}$	'25
95	511	422	6 $\frac{3}{4}$	10 $\frac{1}{2}$	5 $\frac{1}{2}$	'26
69	675	572	6 $\frac{1}{2}$	9 $\frac{3}{8}$	5 $\frac{1}{8}$	'27
64	732	526	6 $\frac{3}{8}$	8 $\frac{3}{8}$	4 $\frac{5}{8}$	'28
118	745	409	5 $\frac{3}{4}$	7 $\frac{1}{4}$	4	'29
33	832	415	6 $\frac{7}{8}$	8 $\frac{1}{4}$	5	1830
75	858	386	6	7 $\frac{3}{4}$	4 $\frac{5}{8}$	'31
67	891	330	6 $\frac{5}{8}$	9	5	'32
68	880	300	8 $\frac{1}{2}$	10 $\frac{3}{8}$	6 $\frac{1}{8}$	'33
87	919	245	8 $\frac{5}{8}$	11 $\frac{7}{8}$	6 $\frac{5}{8}$	'34
103	954	280	10 $\frac{1}{4}$	14 $\frac{1}{8}$	7 $\frac{1}{2}$	'35
106	1,011	364	9 $\frac{7}{8}$	12 $\frac{7}{8}$	6 $\frac{3}{4}$	'36
124	1,057	359	7	9 $\frac{3}{4}$	4 $\frac{7}{8}$	'37
103	1,206	471	7	9 $\frac{3}{8}$	5	'38
117	1,114	355	7 $\frac{7}{8}$	10	5 $\frac{3}{4}$	'39
120	1,251	584	6	9 $\frac{1}{4}$	4 $\frac{5}{8}$	1840
116	1,192	619	6 $\frac{1}{4}$	8 $\frac{3}{4}$	4 $\frac{5}{8}$	'41
134	1,160	674	5 $\frac{3}{8}$	7 $\frac{1}{4}$	4	'42
120	1,367	921	4 $\frac{5}{8}$	6 $\frac{3}{8}$	3 $\frac{5}{8}$	'43
137	1,429	1,037	4 $\frac{7}{8}$	6 $\frac{3}{8}$	3 $\frac{5}{8}$	'44
123	1,574	1,195	4 $\frac{3}{8}$	6 $\frac{3}{8}$	3	'45
194	1,586	659	4 $\frac{7}{8}$	7 $\frac{3}{8}$	3 $\frac{3}{8}$	'46
222	1,158	512	6 $\frac{3}{8}$	7 $\frac{3}{8}$	4 $\frac{1}{2}$	'47
190	1,464	598	4 $\frac{1}{4}$	6	3 $\frac{1}{4}$	'48
254	1,590	659	5 $\frac{1}{8}$	5 $\frac{1}{2}$	3 $\frac{7}{8}$	'49

held by manufacturers in the interior.

Import, Export, Consumption, Stock, and Average

Years.	Import (Bales).						Average Weight per Bale of Import.
	U. S.	Brazil.	Egyptian.	W. I.	E. I.	Total.	
							lbs.
1850.....	1,184	172	79	6	308	1,749	392
'51.....	1,394	109	67	5	329	1,904	399
'52.....	1,789	144	190	13	221	2,357	392
'53.....	1,532	133	105	9	485	2,264	398
'54.....	1,666	107	81	10	308	2,172	408
'55.....	1,623	135	115	9	396	2,278	396
'56.....	1,758	123	113	11	463	2,468	414
'57.....	1,482	169	76	11	680	2,418	404
'58.....	1,863	106	106	6	361	2,442	420
'59.....	2,086	125	101	7	511	2,830	421
1860.....	2,581	103	109	10	563	3,366	424
'61.....	1,840	100	98	10	987	3,036	415

* Estimated, and inclusive of, the amount

II.—Effects of Inconvertible Paper Issues in New York, in November, 1862.

THE two following paragraphs from leading journals in New York, will indicate the kind of financial difficulties which are there presenting themselves. Unless some speedy remedy be applied, it is probable that the worst mischiefs of the *Assignats* will be repeated in the Northern States:—

“To say that gold has risen to 33 per cent. premium, is a pleasant way of stating that paper money has depreciated 33 per cent. Practically, in their conversation and reports, the Wall-street financiers make paper the standard, and talk as if gold had risen above the standard. The fact is, as they and everybody else know, that gold is the standard, and that paper has fallen below this standard and is at a large discount. In a word, the one dollar bill you have in your portemonnaie is worth, according to yesterday's quotations, only 67c. That information affects you in quite a different way from the stereotyped announcement that gold has risen. You do not care how high gold may rise so long as your bank bills are at par. The delicate sophism of the money changers leads you to forget that it is not gold that rises, but paper money that falls. Every time that the premium on gold increases, the bills in your pocket lose in value. Your riches, if they happen to be in paper money, take to themselves wings, and fly away in spite of you. You find that the prices of coal, of flour, of butter, of dry goods, of clothing, of all the common necessities of life, also rise with gold. The main secret of this rise is that the merchants with whom you deal can only give you 67c.-worth of articles for your dollar bill, worth only 67c.; and so they raise their prices in order to balance the discount on paper. If you can afford to hold on to your bills till the war is over, they may regain their original value. If you must part with them now—and nearly every one must—then you are certain to suffer. It being understood, therefore, that the rise in gold is really a depreciation in the value of paper, the people inquire who is responsible for this great depreciation. We answer, Secretary Chase and the present Congress. The Treasury Department has been most grossly mismanaged. Secretary Chase had a sound system of finance prepared for him by

Prices of Cotton from 1801 to 1861—Contd.

Export.	Consumption.	Stock.*	Average Prices.			Years.
			Upland.	Pernam.	Surats.	
			<i>d.</i>	<i>d.</i>	<i>d.</i>	
272	1,514	622	7¼	7⅞	5⅓	1850
268	1,663	594	5¾	7½	4	'51
283	1,861	807	5⅝	7	3¾	'52
350	1,904	817	5⅝	7	3½	'53
316	1,967	706	5⅝	7	3½	'54
317	2,101	566	5¾	7	3⅞	'55
359	2,183	493	6	7⅓	4⅝	'56
337	2,031	542	7¼	8¾	5⅝	'57
349	2,174	462	6¼	8¼	4¾	'58
436	2,297	559	6½	8⅝	4¾	'59
608	3,523	794	5½	8¼	4⅓	1860
677	2,364	789	7¾	9½	5⅞	'61

held by manufacturers in the interior.

practical men, but he does not know how to manage it. If the system now in operation had been properly carried out, paper could not have depreciated more than 8 per cent. by this time. There is nothing either in the condition of the country or the position of our armies, to justify the present large depreciation. If the war had been weighing upon us for ten years, and our prospects of success were still doubtful, then there might be some excuse for such a premium on gold. But the war has lasted but a year and a-half, and its fortunes are indisputably in our favour, and still, on the very days that great Union victories are announced, the premium on gold increases. Clearly, then, there is mismanagement in the Treasury Department. If Secretary Chase had pressed upon Congress at the opening of its last Session the immediate necessity of a Tax Bill, and had followed this up by a Tariff Bill, a Bankrupt Bill, and a Bill taxing local banks, we should have had none of this trouble, and the legal tender notes would now be but little, if at all, depreciated. Instead of this, Secretary Chase seemed contented with the passage of the Acts authorizing the issue of legal tender notes. The Tariff Bill was passed sometime later. The Bankrupt Bill and the Bill of taxing banks were not passed at all. The Tax Bill was at last forced upon the stupid, timid, ignorant Congressmen, by public opinion speaking through the unanimous press. In the meantime Secretary Chase devoted himself to interfering with the War Department, intriguing for and against our Generals, and organizing a Radical Abolition political party, with a view to the next Presidency. The Bills for supporting and maintaining his legal tender currency were postponed. The Confiscation and Emancipation Bill engrossed his whole attention. Even at this late day the application of the Tax Bill is delayed, as the military draught has been, for fear of influencing the elections. This is sacrificing the nation to a party most remorselessly. It is not too late to remedy all this, however. The example of William Pitt, who carried England through a long war by a judicious system of taxation, loans, and legal tender currency, should be studied attentively by Secretary Chase. Let the Tax Bill be enforced so as to supply the Government with money, and, with the Tariff Bill, form the basis of the currency. Then let Congress at its next Session, pass a Bill taxing banks, so as to restrict the bank circulation, and thus

prevent the country being deluged with two kinds of paper money—that of the Government and that of the local banks. Then let a Bankrupt Bill be passed to liberate those of our business men who have their hands tied by old debts resulting from former failures. This done—and with the ordinary chances of war in our favour—the premium upon gold can be reduced to at least 5 per cent. If Secretary Chase were to retire from the Cabinet, and give place to a better financier, this result would be indubitably hastened.”—*New York Herald*.

“Mr. Secretary Chase has succeeded by means of his financial measures in arraying against each other great interests of the country which have heretofore been in harmony, and have by a happy accord developed its resources. In consequence of the vast issues of paper money by the Treasury Department of the General Government, the currency has become so inflated, that real distress is threatened to the working classes through the enormous advance in price of the necessities of life. This great evil can only be avoided by restricting or annihilating the circulating notes of the banks authorized by the laws of the several States. Thus the great industrial interests of the country, or banking institutions which have become established under a policy that has prevailed for twenty-five years, must go to the wall. All experience demonstrates that labour is the last to advance in price, and the first to fall; and although the battle field has destroyed a large proportion of the labouring strength of the North, such is the crippled condition to which the enormous exactions of the tax law have reduced manufactures, that no advance in wages can be looked for. It is therefore undeniably necessary, in order to preserve the equilibrium between the wages of labour and the price of the necessities of life, and protect our manufactures from blight, that measures shall be immediately taken to reduce and restrict the volume of the currency. *The prices of merchandize of all descriptions, are from 25 to 50 per cent. higher than one year ago, and cotton goods have advanced from 100 to 200 per cent.* There has in the meantime been no appreciable advance in the wages of labour, and manufacturers encounter a burden which no tariff can lighten. Ten hundred dollars a year ago was equal to \$1,400 of paper money to-day, and the speculative feeling to which the inflated currency has given rise, has contributed to the unfavourable turn against industrial interests. Mr. Chase has already partially developed what will be his policy in this emergency. He will probably open a war upon the bank circulation of the country, and use the distress among the labouring and manufacturing classes to promote his ends. We expect to see Congress asked to pass a law limiting the issue of bank notes within very narrow limits. Such a measure would be fatal to at least one-half of the banking institutions of the country. The provincial banks largely depend upon the profits of their circulation, and if this be prohibited they will have no alternative but to wind up. The stronger banks of the large cities would not suffer materially from this measure; some of them would probably profit by it. The whole tendency of the times is to strengthen the strong and weaken or destroy the weak. But it is difficult to form a just conception of the financial upturning which would be caused in the villages and minor towns. But what can he do? Universal distress will follow, unless something be done to limit the paper currency of the country. Gold and exchange are advancing with great rapidity, and rates are already ruinous. Gold is being shipped from the country in millions, the value of the paper currency is changing daily from extended issues, and a ruinous inflation of all prices, except those which represent the substantial riches of the country, is seen on all sides. The only remedy is in a restriction of the paper issues used as money, however that may be accomplished. We trust Mr. Chase sees clearly the nature of the dilemma into which he has brought the finances of the country, and that he will have the wisdom to apply a thorough and effective remedy before we are overwhelmed in financial if we escape political ruin.”—*New York World*.

III.—*The Distress and the Resources of Lancashire, 1862. Comparative Poor Rate Expenditure, Seventeen Years, 1842-3 to 1859-60.*

THE following useful statement is from the *Times* of 13th November, 1862:—

“Two questions have been sometimes asked of late; they will be more frequently asked before long:—‘To what extent has the property of Lancashire, liable at law to the charge of relieving the destitute poor, been burdened by the present distress in her cotton manufacturing districts?’ And, ‘In what degree has the fiscal pressure in that county exceeded, or is it likely to exceed, that ordinarily borne in other parts of England for the maintenance of the poor?’”

“The open advocacy of a claim upon the Consolidated Fund for a grant in aid to Lancashire that takes the case of the Irish famine as precedent and warranty, with other reasons in support, must force investigation upon the public and render comparisons inevitable. As a preliminary attempt to render in outline a special branch of the comparative economies of our great manufacturing county, we will institute a parallel between it and a south-western district of the same amount of population.

“In the *south-west* we have a group of seven contiguous counties—Hants, Berks, Wilts, Dorset, Somerset, Devon, and Cornwall—with an aggregate population but slightly exceeding that of Lancashire. The last census assigns 2,498,000 persons to the county group, and 2,429,000 to the county. These numbers are sufficiently close for the purposes of the comparison.

“In the decennium which ended in April, 1861, *Lancashire* recruited her numbers largely; and the south-western district moderately. The former had increased by 398,000, and the latter by 118,000 persons.

“In the *seventeen years* ending 1860—and this term is taken for a reason which will be hereafter apparent—the *south-western* group expended in the relief and maintenance of its poor, a total sum of 15,313,983*l.*; and *Lancashire* for the same purpose, 6,940,761*l.* The disbursements of the former districts exceeded those of the latter by 120 per cent. The rateable property of the south-western counties has borne annually a heavier pressure by 120 per cent. than that to which Lancashire has been subjected. In amount Lancashire has had 8,373,000*l.* *less poor rate to pay* than the south-west, with an equal population. More than *eight millions* have been left in the hands of the Lancashire rate-payers by not being required for the poor. This large sum, which would, under a pauper pressure like that of the south-west, have been spent unproductively, has, by the happier circumstances of Lancashire, been applicable to trade and manufactures. Can we suppose that *eight millions* in the hands of the energetic and commercially astute men of the north did not appreciably assist in placing the great cotton county in the foremost rank of industrial England by right of its vast realized property?

“The best, indeed the only measure we possess of the *value of Real property* in this country, is the assessment made by the Inland Revenue Commissioners for the collection of the property tax under Schedule A. These accounts, though they may be found for every year in Parliamentary blue-books or other official papers, in respect of the whole kingdom, have only been twice issued for separate counties since the imposition of the tax by the late Sir Robert Peel. The county statements are for the financial years 1842-3 and 1859-60. In this interval of seventeen years, the same which we have taken for a comparison of the poor-rate expenditure, *Lancashire* rose from a rental of 7,498,512*l.* to 11,453,851*l.*; and the *south-western* group from 11,904,939*l.* to 12,990,274*l.* Lancashire augmented her realty by 3,955,339*l.*, or 53 per cent.; the seven selected counties by 1,085,335*l.*, or 9 per cent. The Lancashire rate of increase was, therefore nearly *sixfold* that of the south-west.

“The property subject to *income tax* assessment under Schedule A, is very nearly identical with that upon which the *poor-rates* are incident. It comes into

the overseer's rate-books nearly in its entirety, and is there tributary to the wants of the poor according to its annual 'rateable value.' *But overseer's 'rateable value,' is a worthless standard of comparison.* This is well known, and the Parochial Assessments Act of last session is the legislative recognition of the fact.

"The uncertain scale of rateable value compels us to employ the property tax returns as the best medium for ascertaining the relative burden of the poor-rates in different localities. If we were in possession of the valuations under Schedule A in each county, and for each of the seventeen years, then a very exact comparison of the pressure of the rates in Lancashire could be instituted with the burden in the south-west during the whole period. Failing that, we take the valuations for 1843 and 1860, and employ the mean of the two sums as representative of the average valuation for each of the seventeen years.

"The mean valuation of Lancashire by this process is seen to be 9,476,031*l.*, and that of the seven counties 12,497,606*l.*

"But during the same time the average annual expenditure of Lancashire for relief to the poor was 408,280*l.*, and the average of the counties 900,822*l.* Relief pressed upon property in Lancashire in the ratio of 10 $\frac{1}{4}$ *d.* in the pound, and in the south-west in the ratio of 1*s.* 5 $\frac{1}{4}$ *d.* Hence, in this aspect, Lancashire was *less weighted* by 7*d.* in the pound—that is, by 40 per cent.

"A load is burdensome in the proportion of its weight to the strength of the bearer. The load may be increased a hundredfold; but if the support have a similar accession of power we acknowledge no augmentation of burden.

"Lancashire, with her thousands but recently added to the pauper roll, may appear, in the imagination of some people, quite unable to support an amount of pressure which many places in England bear, and have borne for years, without exhaustion, or, indeed, any very serious detriment.

"A Parliamentary blue-book informs us that in 1856 the manufacturing unions of Hinckley and Leicester paid for relief to the poor respectively 3*s.* 3 $\frac{3}{4}$ *d.* and 3*s.* 3 $\frac{1}{2}$ *d.* on their rateable property; that in the East London Union the rate was 3*s.* 5 $\frac{3}{4}$ *d.*, and in the West London Union, 3*s.* 7 $\frac{1}{4}$ *d.*, in the pound. In the city of Norwich it was 4*s.* 6 $\frac{3}{4}$ *d.* The year in question was marked by no peculiar depression in any of these places, and in some of them the rates they have since sustained are still higher.

"The trade profits of Lancashire have been immense. In 1860 they constituted nearly *one-fifth* of the entire amount classed under that head for all England. The aggregate assessment of that year in respect of real property, farmers' and trade profits, was 27,469,000*l.* Of this large sum, however, only that which represents the real property is liable to be rated.

"In the present distress considerable amounts of property apparently escape the levy of the collector by reason of the poverty of the occupier. A false inference is easily drawn from the way in which this is often stated. It is said, for example, that 'one-third of the ratepayers' in a township can no longer pay their rates in consequence of the distress, and it is inferred very erroneously that one-third of the rateable value is withdrawn from the levy. But *one-third* of the ratepayers may not occupy *one-tenth* in value of the township property. According to statistics given in evidence before Earl Grey's Select Committee in 1860, fully *one-third* of the ratepayers in the borough of Salford might be excused their rates, yet the total assessment be only reduced in amount by *one-thirteenth*, or less. This arises from the large number of ratepayers in that borough; and it is equally true of other towns in the county where the ratepayers occupy houses under a rental of 5*l.* or 6*l.*

"After making liberal, not to say extravagant allowance, for excusals on account of poverty, we shall find that Lancashire possesses *eight millions* of assessable property legally and directly contributory to the poor relief fund. Regarding the whole county as one union, a rate of 1*s.* 3*d.* in the pound would yield for the three winter months 40,000*l.* per week. This rate, high as it appears when applied to Lancashire, is nevertheless short of that paid last year by Norwich and some other places in the south.

"The tendency of the rate in Aid Act, is to throw the whole county of

V.—*Quinquennial Analysis of the Transactions of the Metropolitan Joint Stock Banks.*

Years.	Banks and Founded.	Number of Shares.	Amount of each Share.	Capital.		Amount of Current and Deposit Accounts.
				Subscribed 30th June, 1862.	Paid up 30th June, 1862.	
		£	£	£	£	£
1852 } '57 } '62 }	London and West- minster (1834)	50,000	100	5,000,000	1,000,000	{ 5,581,706 13,913,058 14,353,034
1852 } '57 } '62 }	London Joint Stock (1836)	60,000	50	3,000,000	600,000	{ 3,591,506 10,698,530 11,304,158
1852 } '57 } '62 }	Union Bank of London (1839)	60,000	50	3,000,000	720,000	{ 4,268,438 10,874,640 11,415,319
1852 } '57 } '62 }	London and County (1836)	30,000	50	1,500,000	571,895	{ 3,281,603 3,857,281 7,702,170
1857 } '62 }	City Bank (1855)	6,000	100	600,000	300,000	{ 1,248,191 3,449,539
1857 } '62 }	Bank of London (1855) .	6,000	100	600,000	300,000	{ 1,205,006 2,254,540

Years.	Banks and Founded.	Reserved Fund.	Net Profits.	Amount of Dividend and Bonus.	Dividends and Bonus.	Amount Paid per Share.	Present Market Value per Share.	Pre- mium.
		£	£	£	Per cent.	£	£	Pr. cent.
1852 } '57 } '62 }	London and West- minster (1834)	{ 109,164 150,000 250,000	{ 85,012 188,776 244,513	{ 80,000 180,000 220,000	{ 8 12 22	{ 20	{ 78	{ 290
1852 } '57 } '62 }	London Joint Stock (1836)	{ 146,613 168,421 249,525	{ 62,278 163,698 161,583	{ 57,000 151,000 135,000	{ 9½ 25¼ 22¼	{ 10	{ 38	{ 240
1852 } '57 } '62 }	Union Bank of London (1839)	{ 50,000 135,000 50,000	{ 38,171 136,226 163,895	{ 29,603 120,000 81,000	{ 7 20 11¼	{ 12	{ 33	{ 175
1852 } '57 } '62 }	London and County (1836)	{ 39,064 100,000 175,000	{ 30,225 58,057 84,411	{ 25,550 54,744 69,073	{ 8 11 12½	{ 20	{ 36	{ 80
1857 } '62 }	City Bank (1855)	{ 10,000 60,000	{ 18,675 37,850	{ 13,500 30,000	{ 6 10	{ 50	{ 90	{ 80
1857 } '62 }	Bank of London (1855) {	{ 8,320 55,000	{ 10,718 46,548	{ 7,500 21,000	{ 2½ 7	{ 50	{ 86	{ 72

Note.—In addition to the above, the following joint stock banks transact business in London, viz., the Agra and United Service Bank, established 1833, with a paid-up capital of 1,000,000*l.*, and a reserved fund of 200,000*l.*; the Alliance, London and Liverpool, established 1862, subscribed capital 2,000,000*l.*, paid-up 240,000*l.*; London and Middlesex, established 1862, subscribed capital 1,000,000*l.*, paid-up 20,000*l.*; Metropolitan and Provincial, established 1861, subscribed capital 1,000,000*l.*, paid-up 200,000*l.*; The National Bank, established 1835, paid-up capital 500,000*l.*, reserved fund, 181,931*l.*; Unity Banking Association, established 1855, paid-up capital 179,195*l.*; West-End Joint Stock Bank, established 1861, nominal capital 500,000*l.*

ABSTRACT OF THE REGISTRAR-GENERAL'S RETURN
OF THE

MARRIAGES IN ENGLAND AND WALES DURING THE SECOND QUARTER
(APRIL—JUNE) OF 1862, AND OF THE BIRTHS AND DEATHS
DURING THE THIRD QUARTER (JULY—SEPTEMBER) OF 1862.

THIS Return comprises the BIRTHS and DEATHS registered by 2,199 Registrars in all the districts of England during the summer quarter that ended on September 30th, 1862; and the MARRIAGES in 12,585 churches or chapels, about 4,672 registered places of worship unconnected with the Established Church, and 637 Superintendent Registrars' offices, in the quarter that ended on June 30th, 1862.

Marriages were not numerous in the spring quarter of this year. During a period of eighteen months, embracing the whole of 1861, and the earlier half of the current year, the marriage-rate was low, and the concluding three months exhibited a remarkable inactivity of the rate at which new families are formed. But the birth-rate was well maintained in the last summer quarter, and in each quarterly period during the last eighteen months children were born in a number exceeding the average. It is still more satisfactory to add that the health of last summer was unusually good. The death-rate has not risen above its average in any quarter of the year, since June, in 1860.

MARRIAGES.—The total number of marriages in the spring quarter of 1860, was nearly 44,000; in that of 1861, it was about 42,000; and in the same quarter of the present year it fell to 40,771.

ENGLAND :—MARRIAGES, BIRTHS, and DEATHS, *returned in the Years*
1856-62, and in the QUARTERS of those Years.

Calendar YEARS, 1856-62 :—Numbers.

Years	'62.	'61.	'60.	'59.	'58.	'57.	'56.
Marriages No.	—	163,745	170,156	167,723	156,070	159,097	159,337
<i>Births.....</i> ,,	—	695,562	684,048	689,881	655,481	663,071	657,453
<i>Deaths.....</i> ,,	—	435,337	422,721	440,781	449,656	419,815	390,506

QUARTERS of each Calendar Year 1856-62.

(I.) MARRIAGES :—*Numbers.*

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	33,976	33,401	35,150	35,382	29,918	33,321	33,427
June ,,	40,771	41,966	43,777	42,042	39,890	41,267	38,820
Septmbr..... ,,	—	39,892	40,541	39,803	38,599	38,669	39,089
Decmbr. ,,	—	48,486	50,688	50,496	47,663	45,840	48,001

QUARTERS of each Calendar Year, 1856-62.

(II.) BIRTHS:—Numbers.

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	182,005	173,170	183,180	175,532	170,959	170,430	169,250
June ,,	185,638	184,718	174,028	175,864	169,115	170,444	173,263
Septmbr. ,,	172,237	171,500	164,121	168,394	157,445	161,181	157,462
Decmbr. ,,	—	166,174	162,719	170,091	157,962	161,016	157,478

(III.) DEATHS:—Numbers.

<i>Qrs. ended last day of</i>	'62.	'61.	'60.	'59.	'58.	'57.	'56.
March .....No.	122,192	121,713	122,617	121,580	125,819	108,665	103,014
June ,,	107,555	107,721	110,869	105,631	107,142	100,046	100,099
Septmbr. ,,	92,225	100,986	86,312	104,216	98,142	100,528	91,155
Decmbr. ,,	—	104,917	102,923	109,354	118,553	110,576	96,238

The annual marriage-rate in the spring quarter of this year, viz., persons married to a hundred in the population, was 1·610. This proportion is *lower* than any result obtained in the same season during an extended series of years, for in the ten years 1852-61 it fell to its lowest point, which was 1·638, in 1856; and the average of the whole series is 1·709.

It will be seen that the *whole of England and Wales*, for the metropolis hardly constitutes an exception to the rule, has been affected more or less in its different parts by the operation of circumstances *unfavourable to marriage*, and that in the eighth division (comprising Lancashire and Cheshire) which in its present state of adversity will first excite attention in the observation of results that are to be obtained from the tables, the *decrease* of marriages is more striking than it is in any other of the groups of counties which form the eleven divisions. It may be remembered that a decrease of marriages in the cotton manufacturing districts in the first quarter of the year, was mentioned in the last Quarterly Report.

ENGLAND:—*Annual Rate Per Cent. of PERSONS MARRIED, BIRTHS, and DEATHS, during the YEARS 1856-62, and the QUARTERS of those Years.*

Calendar YEARS, 1856-62:—General Percentage Results.

YEARS	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
Estmtd. Popln. of England in thousands in middle of each Year....	20,341	—	20,119	19,903	19,687	19,471	19,257	19,043
Persons Married Per ct. }	—	1·684	1·628	1·710	1·704	1·604	1·652	1·674
Births ,,	—	3·420	3·457	3·437	3·504	3·366	3·443	3·453
Deaths ,,	—	2·221	2·164	2·124	2·239	2·309	2·180	2·051

QUARTERS of each Calendar Year, 1856-62.

(I.) PERSONS MARRIED :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	1·360	1·405	1·352	1·422	1·464	1·252	1·410	1·414
June..... „	1·610	1·709	1·676	1·766	1·716	1·646	1·722	1·638
Septmbr. „	—	1·616	1·572	1·614	1·602	1·570	1·592	1·626
Decmbr. „	—	1·991	1·904	2·012	2·026	1·934	1·880	1·992

(II.) BIRTHS :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	3·644	3·588	3·505	3·707	3·631	3·576	3·604	3·580
June „	3·666	3·571	3·687	3·512	3·588	3·488	3·555	3·655
Septmbr. „	3·356	3·285	3·377	3·267	3·389	3·204	3·316	3·276
Decmbr. „	—	3·231	3·264	3·230	3·414	3·205	3·304	3·267

(III.) DEATHS :—Percentages.

<i>Qrs. ended last day of</i>	'62.	Mean '52-'61.	'61.	'60.	'59.	'58.	'57.	'56.
March....Per ct.	2·447	2·489	2·463	2·481	2·515	2·631	2·298	2·179
June..... „	2·124	2·201	2·150	2·237	2·155	2·210	2·087	2·111
Septmbr. „	1·797	2·020	1·989	1·718	2·097	1·997	2·068	1·896
Decmbr. „	—	2·171	2·061	2·043	2·195	2·406	2·269	1·997

In the three spring quarters of 1860-2 (ending 30th June), the marriages in Cheshire numbered respectively 993, 941, 917; those in Lancashire in the same times were 6,331, 6,126, and 5,484. By comparing the marriages in both counties, the number in last spring with the mean of the number in two preceding springs, it is found that the *decrease* is equal to 12·4 per cent.

By a similar mode of comparison the next greatest decrease occurred in the Eastern Counties, Essex, Suffolk, and Norfolk, where it was 9·9 per cent. Sussex may be mentioned as an example of a single county in which there was a decrease of equal amount.

The decrease in Monmouthshire and Wales was 6·4 per cent.; in Yorkshire it was 4·1. The Northern Counties also show a decrease, but it was less than 1 per cent. London stands alone in the eleven divisions as presenting an example of increase, but as this was only 1 per cent. in an ever-growing population, the marriage-rate even in the metropolis was not unusually brisk.

The decrease in the marriages of all England was 5·2 per cent.; and it may be inferred from the above facts that a large portion of that class of the population by which families are established did not consider that their circumstances justified the formation of fresh alliances. Lancashire in its season of calamity has borne

witness to the operation of a law of prudence which has not been without its effect in most of the other parts of the kingdom.

Lancashire is divided into twenty-six districts, and of these there appears to have been in West Derby alone a continuous increase of marriages in three June quarters (1860-2); the numbers in that district were 375, 434, 460. The numbers as returned by some of the more important districts, and showing a decrease, may be stated,—Liverpool, 1,058, 997, 968; Prescot, 137, 139, 126; Wigan, 198, 223, 174; Bury, 226, 223, 185; Salford, 161, 159, 148; Manchester, 1,245, 1,163, 1,054; Ashton, 352, 284, 219; Oldham, 207, 238, 192; Haslingden, 167, 173, 145; Burnley, 166, 159, 141; Blackburn, 346, 318, 200; Chorley, 95, 88, 67; Preston, 325, 289, 213.

The returns of Ashton, Blackburn, and Preston may be selected from the list as signal instances of the marriage-rate being depressed when *hard times* have fallen on the industry of a people.

BIRTHS.—The total number of *births* in the quarter that ended 30th September was 172,237. It showed an increase of 4,427 above the mean of two previous summer quarters (1860-1). The birth-rate was 3·356 per cent. of the population, against an average of 3·285 in ten corresponding quarters (1852-61).

In Cheshire and Lancashire the numbers of children born in three summer quarters were 25,691 in 1860; 27,184 in 1861; and 27,984 in 1862. The last number as compared with the mean of the two previous numbers represents an *excess* of 5·9 per cent. This *increase is higher* than that shown by any other of the groups of counties distinguished as the “Eleven Divisions.” This fact is the more remarkable, because it is probable that not a few of the industrial population had left their homes for Yorkshire and other parts in quest of work, and that comparatively few persons arrived to settle in the districts of the cotton manufacture; while it can be shown that in other parts where the population increases even more rapidly, the increase of births was less than it was in Lancashire; as, for example, in the Northern Division the births increased only 2·7 per cent., and in London less than 1 per cent. The increase which was next to that of Cheshire and Lancashire, and was nearly as great, occurred in the Welsh Division.

Though London contains 300,000 more people than Lancashire, the number of children born in the former was less than that of the births returned by the latter. The respective numbers were 22,984 and 23,729.

INCREASE OF POPULATION.—The excess of births over deaths in the last quarter was 80,012. The natural increase of the population was therefore at the rate of 870 daily. As the stream rises, part of it overflows into other regions of the globe.

The number of *emigrants* to all parts who left ports in the United Kingdom, where there are emigration officers, in the three months that ended 30th September, was 33,240; and in this number the English emigrants may be stated approximately as 12,866. The emigration to the Australian Colonies has much increased; the English, Irish, Scotch, and others who went thither last quarter was 12,071; in either of the two previous summers they were little more than 7,000. British North America also drew a larger company. The number who sought the United States was 14,170, the number in the same quarter of 1860 having been 21,104, and in that of the following year 6,348. Of the 12,866 English who emigrated about 5,255 went to the United States, and 6,536 to the Australian colonies.

PRICES, THE WEATHER, AND PAUPERISM.—The average price of consols was 93 $\frac{2}{8}$; it has been above 93 in the four quarters that have elapsed since September of last year. *Wheat* (the average price 56s. 10d. per quarter) was dearer than in the same period of last year, when the price was 52s. 1d. The average of the highest and lowest prices of *beef* at Leadenhall and Newgate was 5 $\frac{1}{4}$ d. per lb.; and of mutton 6 $\frac{1}{8}$ d. *Best potatoes* were 115s. per ton; they were dearer than they had been at the same time last year.

The *mean temperature* of the air at Greenwich was 58°·7, which is 1°·3 below the average of the same three months in twenty-one years. The coldness of the season would have ranged still higher in meteorological notation, but that warmer

weather in the latter half of September modified the final result. Mr. Glaisher writes (see Appendix which contains observations made at numerous stations) that “the cold weather which set in on the 9th June, continued with trifling exceptions till the 12th September. Within this long period of ninety-six days there were only *twelve days* on which the temperature reached or exceeded its average value.” During the last eighteen days of September the weather was warm. The mean temperature of *July* was lower than that of the same month in any year since 1841, with the exception of 1860. The mean temperature of *August* was lower than that of the same month in any year since 1845, with the exception of 1860. The mean temperature of *September* was nearly one degree above the average. The atmosphere was humid throughout the summer. The fall of rain was 6°·3 inches, the half of which was in August; but though the last-mentioned month was wet, the total fall in the quarter was not excessive.

Much rain fell in the northern counties; as much as six inches in August at Alnwick and North Shields. At Manchester the fall in the three months was almost 12 inches. In some of the reports of registrars in Lancashire the weather is stated to have been mild, and conducive to health.

The returns of the Poor Law Commissioners are heavy for the summer quarter. The increase of pauperism is seen in the following statement, which shows the quarterly average of poor persons relieved on the last day of each week:—

Quarter ending 30th September, 1860;	In-door, 101,680;	Out-door, 667,680.
„ „ 1861;	„ 112,932;	„ 693,649.
„ „ 1862;	„ 119,592;	„ 789,914.

THE MORTALITY, AND THE STATE OF THE PUBLIC HEALTH.—The total number of deaths in the three months that ended 30th September was 92,225. In the same quarter of 1860, it did not much exceed 86,000; in that of 1861 it was about 101,000. The cold summer of this year was less healthy than the still colder summer of 1860; but it was healthier than the warmer summer of last year. A cold winter makes frequent funerals; it cuts off quickly the old and infirm; but it may be admitted amongst ascertained facts that a *cold summer* with rain enough to wash and sweeten the earth and air is *favourable to health*, and especially to the health of children. The weather which the farmer most desires for his harvest operations is not the most salubrious for the people who are to be afterwards fed with his produce. It is the business of sanitary science to assist in reconciling these separate interests.

The annual rate of mortality in the quarter was 1·797 per cent. of the population against an average derived from ten summers (1852-61) of 2·020 per cent. In these ten summers there is but a single example of *so low a death-rate*, viz., that furnished by 1860, which was 1·718. Even in summer which is the healthiest season of the year, the mortality of all England is seldom so low as 1·9 per cent.

But the *country districts* apart from the towns testify as usual to the benefit which they derive from “country air,” for their rate of mortality was 1·586 (the average being 1·747); whilst in urban populations it was 2·011 (the average being 2·328). The causes, meteorological or of whatever kind they may have been, which exerted a wholesome influence on the population generally, saved in the country, in every 10,000 persons, sixteen lives, which would have been lost in a season when the mortality was near its average; and in the *towns* the saving was double that amount, namely thirty-two lives in an equal number (10,000) of the population. The remark is obvious enough, but it may be excused because it is in accordance with the facts stated, that if there is dirt to be removed by water, or miasms to be checked by cold, the part where such nuisances most abound will be most benefited by the destruction or removal of them.

Though the rate of mortality of town districts in the aggregate was 2·01 per cent., in many towns it was much higher. To take a few instances: in London it was 2·09; in Liverpool, 3·12; in Manchester, 2·40; in Sheffield, 2·47; in Leeds 2·75; and in Rotherham, 2·76.

The mortality of the North-western counties (Lancashire and Cheshire), which is always high, was last quarter *not quite so high* as that of London, and it was not much higher than that of Yorkshire. In the last-mentioned division the death-rate was 1·98 per cent.; in Lancashire and Cheshire 2·02; in London 2·09. The Northern counties (Northumberland, Durham, &c.) show a rate of mortality in the quarter of 1·84. These four divisions are distinguished from the remaining seven divisions by the higher death-rates that prevailed in them. In the South-western counties (Cornwall, Somersetshire, &c.) the population enjoyed the greatest health, for the death-rate did not exceed 1·54; and in the South-eastern (Surrey, Kent, Sussex, &c.) it was almost equally low. The following districts in the North-western counties exhibited a continuous *increase* in the number of deaths in three September quarters:—

	1860.	1861.	1862.
Northwich	144	155	192
Great Boughton	225	262	300
Wirral and Birkenhead	281	337	393
Liverpool	1,680	2,038	2,116
West Derby	923	1,222	1,322
Clitheroe	68	86	100
Chorley	147	212	218
Ulverstone	137	149	177

The excess in *Liverpool* was caused by diarrhoea and scarlatina; and it cannot be doubted that if those and other diseases of children, or fever, broke out in the more distressed districts where families who had lived apart now crowd in the same house, the mortality would be great. The following are certain of the districts where there has been a *decrease of deaths* in the last September quarter:—

	1860.	1861.	1862.
Wigan	452	495	433
Bolton	624	836	575
Bury	461	556	453
Chorlton	716	1,000	880
Manchester	1,553	1,970	1,475
Ashton	638	818	635
Oldham	542	666	601
Rochdale	431	482	353
Haslingden	341	387	296
Burnley	339	448	327
Blackburn	562	687	526
Preston	549	731	603

A few of the Registrars witnessing a reduction of the mortality with the distress that prevailed in their districts at the same time have been tempted to speculate on the facts, and as those officers in the course of their duties are in frequent communication with the labouring classes their opinions may be quoted. The Registrar of *Wigan* states that more freedom to breathe the fresh air, inability to indulge in spirituous liquors, and better nursing of children, are believed to have improved the public health. The Registrar of *Little Bolton* holds that the decrease of deaths is mainly due to a greater amount of domestic superintendence. The Registrar of *Hulme* thinks that the even temperature of the weather and increased

attention paid to young children have caused the decrease. The Registrar of *Knott Lanes* (Ashton) attributes the result to absence of epidemics, mildness of the weather, out-door exercise, maternal care; also to parish relief and charitable contributions, by means of which food has been obtained not sufficient for health, but enough to mitigate distress and prevent hitherto an increase of mortality. The Registrar of *Preston* sub-district also refers to the good effect of fresh air, nursing, and mildness of the weather, and he adds: "In the weeks ending August 2nd, 9th, 16th, 23rd, and 30th, I registered 30, 25, 29, 24, and 37 deaths, but in the corresponding weeks of 1861, when the work was more plentiful and people in better circumstances they were 50, 40, 50, 42, and 57. The peaceful and dignified conduct of the operatives entitles them to the warmest sympathy and support of all classes." The Registrar of *Ancoats* (Manchester) is convinced that the low rate of mortality in his sub-district was due to the coldness of the summer, in consequence of which diarrhœa did not prevail.

It has been recently asked whether starvation is good for the health, and attempts have been made with indifferent success to solve a difficulty which has not arisen. Nobody will seriously contend that inadequate supplies of food are conducive to health; it is too well known that famine has often slain its thousands; but it is right at the present time to guard against deductions from the returns of mortality which they do not justify. It has been assumed as obvious that if the death-rate in the distressed districts does not exceed or falls below that which has prevailed in times of prosperity, the relief obtained by the unemployed from public and private sources has sufficed to maintain them in health. The allowances may or may not have been sufficient in amount, but the returns of mortality furnish no evidence of the fact; they only show that extreme consequences of famine have not yet been manifested. Recreation in the open air, moderation in meat and drink, and the due administration of domestic offices are beneficial to health, but if they have been compensation for the loss of wages the tables above quoted are silent on the point. These tables prove that under circumstances favourable to human life the mortality in England was reduced last quarter, and that the districts of the *cotton manufacture* were not prevented by the distress from participating in the benefit; they cannot show that if Lancashire had been prosperous the health of its people would not have been still better and a further reduction of mortality obtained. It is matter not of speculation but fact that winter approaches, and that the cold of winter swells the bills of mortality by attacking the old, the young, and the infirm of middle age, and it needs not the gift of prophecy to predict that if cold and want, prolonged and embittered, attack a population with combined force, it must fall as if under an armed host. To avert or mitigate such a result, food, clothing, bedding, and firing must be dispensed by a public or private charity that can rise to the greatness of the occasion.

MARRIAGES *Registered in Quarters ended 30th June, 1862-60; and*
 BIRTHS and DEATHS *in Quarters ended 30th September, 1862-60.*

1 DIVISIONS. (England and Wales.)	2 AREA in Statute Acres.	3 POPULATION, 1861. (Persons.)	4 5 6 MARRIAGES in Quarters ended 30th June.		
			'62.	'61.	'60.
ENGLD. & WALES.... <i>Totals</i>	37,324,883	20,066,224	No. 40,771	No. 41,966	No. 43,777
I. London	77,997	2,803,989	7,198	6,897	7,349
II. South-Eastern	4,065,935	1,847,661	3,324	3,436	3,442
III. South Midland	3,201,290	1,295,497	1,989	1,976	2,139
IV. Eastern	3,214,099	1,142,580	1,548	1,677	1,726
V. South-Western	4,993,660	1,835,714	3,519	3,651	3,803
VI. West Midland	3,865,332	2,436,568	4,944	5,127	5,347
VII. North Midland	3,540,797	1,288,928	2,645	2,771	2,908
VIII. North-Western	2,000,227	2,935,540	6,401	7,067	7,324
IX. Yorkshire	3,654,636	2,015,541	4,161	4,127	4,534
X. Northern	3,492,322	1,151,372	2,588	2,726	2,494
XI. Monmthsh. & Wales	5,218,588	1,312,834	2,454	2,511	2,711

7 DIVISIONS. (England and Wales.)	8 9 10 BIRTHS in Quarters ended 30th September.			11 12 13 DEATHS in Quarters ended 30th September.		
	'62.	'61.	'60.	'62.	'61.	'60.
ENGLD. & WALES.... <i>Totals</i>	No. 172,237	No. 171,500	No. 164,121	No. 92,225	No. 100,986	No. 86,312
I. London	22,984	23,126	22,407	15,133	14,932	12,936
II. South-Eastern	13,992	14,336	13,453	7,368	8,395	6,938
III. South Midland	10,399	10,547	10,110	5,361	6,235	5,358
IV. Eastern	8,964	9,013	8,514	4,706	5,857	4,563
V. South-Western	14,165	14,386	13,474	7,142	7,612	7,050
VI. West Midland	21,472	21,525	20,754	10,619	11,416	9,645
VII. North Midland	11,155	11,080	10,777	5,332	6,529	5,421
VIII. North-Western	27,984	27,184	25,691	15,302	17,316	13,954
IX. Yorkshire	18,847	18,635	17,737	10,228	10,901	9,797
X. Northern	11,031	10,982	10,505	5,470	6,107	5,149
XI. Monmthsh. & Wales	11,254	10,686	10,699	5,564	5,686	5,501

REMARKS ON THE WEATHER

DURING THE QUARTER ENDING 30TH SEPTEMBER, 1862.

By JAMES GLAISHER, ESQ., F.R.S., &c., *Sec. of the British Meteorological Society.*

The cold weather which set in on the 9th of June, continued with but few and trifling exceptions till the 12th of September; the average daily deficiency of temperature during these 96 days, was $2\frac{1}{2}^{\circ}$. Within this long period there were 12 days only on which the temperature of the air reached or exceeded its average value; and the excess above the average, on the very few days so distinguished, was generally less than 3° ; and on one day only, viz., the 8th of September, it was as large as 5° . Within this period of 96 days, rain fell on 40 days, to the amount of 7 inches. The wind blew from the north or a compound of the north on 26 days, from the S.W. on 35 days, the west on 28 days, south 3 days, and from the S.E. and E. 4 days. From the 13th of September the weather was warm, and for the 18 days ending the 30th of September, the average daily excess over their averages, was $2\frac{3}{4}^{\circ}$.

The mean temperature of the air in *July* was $59^{\circ}\cdot 1$, being $1^{\circ}\cdot 8$ lower than in 1861, and lower than in any July to 1841, with the exception of that of 1860, which was $57^{\circ}\cdot 6$.

The mean temperature of *August* was $59^{\circ}\cdot 5$, being $3\frac{3}{4}^{\circ}$ lower than in 1861, and lower than all back to 1845, with the exception of 1860, which was $57\frac{3}{4}^{\circ}$.

The mean temperature of *September* was $57^{\circ}\cdot 7$, being $0^{\circ}\cdot 6$ warmer than in 1861, and $4^{\circ}\cdot 3$ warmer than in 1860.

The mean high day temperature of the air was $2^{\circ}\cdot 9$ in defect in July, $1^{\circ}\cdot 9$ in defect in August, and $0^{\circ}\cdot 1$ in excess in September as compared with the averages of the preceding 21 years.

The mean low night temperature of the air was $2^{\circ}\cdot 4$ in defect in July, $2^{\circ}\cdot 0$ in defect in August, and $1^{\circ}\cdot 2$ in excess in September.

Therefore both the days and nights in July and August were cold, and in September the nights were warm, the days being of their average warmth only.

The mean temperature of the air was $2^{\circ}\cdot 7$ in defect in July, $1^{\circ}\cdot 9$ in defect in August, and $0^{\circ}\cdot 8$ in excess in September.

The mean temperature of the dew point was $1^{\circ}\cdot 5$ in defect in July, $0^{\circ}\cdot 6$ in defect in August, and $1^{\circ}\cdot 4$ in excess in September.

The degree of humidity was at all times above its average value. Although there was less water present in the air in the months of July and August, the relative humidity was greater than usual owing to the low temperature of these two months.

The pressure of the atmosphere in each month was very nearly of its average value.

The fall of rain in July was 1·7 inch, in August 3·0 inches, and in September 1·6 inch, the total fall for the quarter was 6·3 inches, being 1·2 inch below the average of the preceding 43 years.

The mean temperature of the air at Greenwich in the three months ending August, constituting the three summer months, was 53°·9, being 0°·4 below the average of the preceding 91 years.

1862. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air—Daily Range.		Water of the Thames	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.
	Mean.	Diff. from Average of 91 Years.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.					
July	59·1	-2·3	-2·7	55·6	-1·9	52·4	-1·5	20·0	-0·5	61·5	·394	-.023	4·5	-0·1
Aug.	59·5	-1·1	-1·9	56·3	-1·3	53·5	-0·6	19·5	+0·1	63·7	·410	-.012	4·6	-0·1
Sep.	57·7	+1·4	+0·8	55·0	+1·1	52·5	+1·4	17·5	-1·1	60·9	·396	+·015	4·4	+0·2
Mean.....	58·7	-0·7	-1·3	55·6	-0·7	52·8	-0·2	19·0	-0·5	62·0	·400	-.007	4·5	0·0

1862. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Mean.	Diff. from Average of 21 Years.	Amnt.	Diff. from Average of 46 Years.		Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
										At or below 30°.	Between 30° and 40°.	Above 40°.		
July	78	+ 2	In. 29·762	In. —·033	Gr. 531	Gr. + 3	In. 1·7	In. —1·0	Miles. 261	0	2	29	37·5	52·7
Aug.	81	+ 4	29·785	—·006	530	+ 2	3·0	+0·6	199	0	1	30	39·7	56·1
Sep.	83	+ 2	29·859	+·036	534	0	1·6	—0·8	172	0	6	24	32·0	55·0
Mean.....	81	+ 3	29·802	—·001	532	+ 2	Sum 6·3	Sum —1·2	Mean 210	Sum 0	Sum 9	Sum 83	Lowest 32·0	Highest 56·1

Note.—In reading this table it will be borne in mind that the sign (–) minus signifies below the average, and that the sign (+) plus signifies above the average.

At *Guernsey*, barley and rye were cut on 26th of July, wheat on the 30th; the harvest was finished by the end of August.

At *Worthing*, wheat was cut on 27th of July; the harvest became very general by the 4th of August; the grain was all housed by the end of the month. Altitude in this neighbourhood seems to influence the crops very much. Corn is now grown on the downs, 700 feet above the sea level.

At *Belvoir*, wheat cutting commenced in the second week in August, the crop is rather a light one, the ears being imperfectly filled; oats are more promising; the hay crop was well got in, the quality never better, and a good medium crop in bulk; stock generally healthy; orchard fruit variable; potatoes much affected by disease.

ENGLAND.—Meteorological Table, Quarter ended 30th September, 1862.

1	2	3	4	5	6	7	8	9
NAMES OF STATIONS.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermo- meter.	Lowest Reading of the Thermo- meter.	Range of Tem- perature in the Quarter.	Mean Monthly Range of Tem- perature.	Mean Daily Range of Tem- perature.	Mean Tem- perature of the Air.	Mean Degree of Hu- midity.
	in.	°	°	°	°	°	°	
Guernsey	29·584	71·0	49·0	22·0	19·0	8·7	57·8	87
Exeter	29·580	74·2	44·0	30·2	27·6	14·3	58·2	81
Ventnor	29·589	70·0	48·0	22·0	20·0	9·1	60·1	79
Barnstaple	29·591	75·1	42·2	39·9	29·6	13·7	58·3	84
Royal Observatory	29·582	79·9	39·2	40·7	34·7	19·0	58·8	81
Royston.....	29·572	80·0	41·3	38·7	33·2	19·3	57·6	78
Lampeter	29·573	75·0	33·4	41·6	38·2	19·8	55·8	84
Norwich.....	29·587	74·5	43·0	31·5	28·5	14·6	58·4	82
Derby	29·577	75·0	36·0	39·0	30·7	15·0	59·3	79
Liverpool	29·579	69·8	47·6	22·2	18·6	9·7	57·7	74
Wakefield	29·576	77·7	34·5	43·2	36·3	18·1	56·9	81
Leeds.....	29·565	73·0	38·0	35·0	28·7	15·1	55·6	82
Stonyhurst.....	29·565	70·9	40·3	30·6	27·0	14·5	55·5	83
Scarborough	29·569	70·0	45·0	25·0	21·0	8·9	54·5	93
Harrogate	29·558	72·0	41·0	31·0	26·6	14·4	55·0	82
North Shields ...	29·557	72·0	39·6	32·4	26·1	12·2	54·3	84

10	11	12	13	14	15	16	17	18
NAMES OF STATIONS.	WIND.					Mean Amount of Cloud.	RAIN.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·4	9	5	7	10	4·2	34	4·3
Exeter	1·1	8	3	8	12	6·6	54	6·7
Ventnor	—	4	5	8	14	—	42	4·9
Barnstaple	1·4	5	5	10	11	4·5	50	10·6
Royal Observatory	—	5	5	8	12	7·3	48	6·3
Royston.....	—	8	4	6	13	6·3	42	6·2
Lampeter	0·6	2	7	12	10	7·2	32	9·4
Norwich.....	—	7	6	9	9	—	33	6·0
Derby	—	—	—	—	—	—	43	7·7
Liverpool	1·2	—	—	—	—	7·1	39	8·1
Wakefield	1·6	7	7	7	9	6·9	48	7·3
Leeds.....	1·6	6	5	10	10	7·6	44	5·2
Stonyhurst.....	0·5	7	7	5	12	7·7	56	14·0
Scarborough	3·0	5	8	10	8	—	—	7·5
Harrogate	0·8	7	6	6	9	3·6	45	8·6
North Shields	1·9	8	5	6	12	6·0	51	9·0

Trade of United Kingdom, 1862-61-60.—*Distribution of Exports from United Kingdom according to the Declared Real Value of the Exports; and the Computed Real Value (Ex-dut) of Imports at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (<i>excluding Gold and Silver</i>), Imported from, and Exported to, the following Foreign Countries, &c. (The unit 000's are omitted.)	First Six Months.					
	1862.		1861.		1860.	
	Imports from	Exports to	Imports from	Exports to	Imports from	Exports to
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	4,773,	1,673,	4,718,	2,137,	5,531,	1,99
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	10,231,	9,475,	10,809,	9,795,	10,985,	10,07
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	12,667,	7,152,	12,676,	6,240,	11,510,	4,74
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	2,121,	3,229,	3,232,	3,785,	2,122,	2,72
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	7,452,	2,787,	6,452,	2,704,	6,886,	3,76
Northern Africa; viz., Tripoli, Tunis, Algeria, and Morocco	206,	101,	204,	99,	73,	7
Western Africa	648,	474,	419,	423,	649,	47
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Moorla Islands	—	51,	—	23,	19,	5
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	671,	750,	570,	1,074,	643,	89
South Sea Islands	—	—	—	27,	—	—
China, including Hong Kong	7,136,	1,883,	5,642,	3,204,	5,526,	2,85
United States of America	11,221,	6,450,	32,012,	5,434,	25,631,	9,48
Mexico and Central America	461,	271,	271,	452,	245,	28
Foreign West Indies and Hayti	1,865,	1,287,	1,728,	1,037,	1,426,	80
South America (Northern), New Granada, Venezuela, and Ecuador	492,	448,	322,	730,	297,	48
„ (Pacific), Peru, Bolivia, Chili, and Patagonia	2,604,	814,	2,482,	1,08,	2,435,	1,33
„ (Atlantic) Brazil, Uruguay, and Buenos Ayres	2,629,	2,530,	1,455,	3,505,	2,022,	3,16
Whale Fisheries; Grnld., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	14,	9,	5,	3,	24,	—
Total.—Foreign Countries	65,191,	39,384,	82,997,	41,980,	76,024,	43,23
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	10,314,	7,909,	7,722,	8,628,	7,382,	9,377
Austral. Cols.—New South Wales and Victoria	2,451,	3,967,	2,462,	3,767,	2,411,	4,116
„ „ So. Aus., W. Aus., Tasm., and N. Zea.	764,	1,159,	799,	1,070,	1,029,	913
British North America	1,539,	1,475,	1,050,	1,698,	697,	1,522
„ W. Indies with Btsh. Guiana & Honduras	3,318,	1,629,	2,577,	1,249,	2,758,	1,149
Cape and Natal	592,	949,	494,	971,	760,	952
Brt. W. Co. of Af., Ascension and St. Helena	61,	207,	84,	165,	66,	166
Mauritius	809,	256,	1,567,	289,	1,087,	252
Channel Islands	345,	380,	327,	326,	242,	338
Total.—British Possessions	20,193,	17,931,	16,082,	18,163,	16,438,	18,786
General Total£	85,384,	57,315,	99,079,	60,143,	92,462,	62,019

IMPORTS.—(United Kingdom.)—First Eight Months (*January—August*), 1862-61-60-59-58.—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandize Imported into the United Kingdom.*

(First Eight Months.) (000's omitted.) FOREIGN ARTICLES IMPORTED.		1862.	1861.	1860.	1859.	1858.
		£	£	£	£	£
RAW MATLS.— <i>Textile.</i>	Cotton Wool ...	11,655,	30,809,	28,941,	24,039,	22,291,
	Wool (Sheep's)..	7,333,	6,455,	7,797,	6,981,	5,600,
	Silk	9,764,	5,428,	6,243,	6,965,	3,564,
	Flax	2,664,	1,474,	2,256,	2,145,	1,465,
	Hemp	1,336,	909,	835,	1,372,	876,
	Indigo	2,151,	1,993,	1,893,	1,602,	1,380,
		34,903,	47,068,	47,965,	43,104,	35,176,
	„ „ <i>Various.</i> Hides	1,681,	1,404,	2,085,	1,884,	1,272,
	Oils	2,164,	1,937,	2,259,	1,917,	1,961,
	Metals	2,807,	2,106,	2,460,	2,215,	2,139,
„ „ <i>Agretil.</i>	Tallow	995,	1,174,	1,586,	1,150,	1,087,
	Timber.....	4,908,	5,214,	4,513,	3,826,	2,523,
		12,555,	11,835,	12,903,	10,992,	8,982,
	Guano	518,	1,395,	923,	1,545,	2,976,
	Seeds	1,413,	1,679,	1,850,	615,	1,027,
		1,931,	3,074,	2,773,	2,160,	4,003,
	TROPICAL, & C., PRODUCE. Tea ...	5,652,	4,219,	5,081,	3,741,	3,301,
	Coffee	2,379,	1,491,	1,428,	1,078,	1,221,
	Sugar & Molasses	8,892,	9,487,	9,005,	8,189,	8,326,
	Tobacco	673,	713,	463,	420,	696,
FOOD	Rice	1,266,	1,024,	473,	284,	1,108,
	Fruits	185,	354,	320,	167,	184,
	Wine	2,468,	2,829,	3,096,	1,582,	1,391,
	Spirits	1,078,	1,084,	1,420,	1,279,	754,
		22,593,	21,201,	21,286,	16,740,	16,981,
	Grain and Meal..	23,233,	24,693,	15,819,	12,118,	14,066,
	Provisions	5,090,	4,404,	3,693,	2,044,	2,184,
		28,323,	29,097,	19,512,	14,162,	16,250,
	Remainder of Enumerated Articles	2,379,	2,312,	2,455,	2,134,	1,810,
	TOTAL ENUMERATED IMPORTS....	102,684,	114,588,	106,894,	89,292,	83,202,
Add for UNENUMERATED IMPORTS (say)		25,671,	28,647,	26,723,	22,323,	20,800,
TOTAL IMPORTS.....		128,355,	143,235,	133,617,	111,615,	104,002,

EXPORTS. — (United Kingdom.) — First Nine Months (*January—September*),
1862-61-60-59-58.—*Declared Real Value, at Port of Shipment, of Articles of*
BRITISH and IRISH Produce and Manufactures Exported from United Kingdom.

(First Nine Months) (Unit 000's omitted.) BRITISH PRODUCE, &c., EXPORTED.		1862.	1861.	1860.	1859.	1858.
		£	£	£	£	£
MANFRS.— <i>Textile.</i>	Cotton Manufactures..	24,769,	28,683,	30,947,	28,957,	24,212,
	„ Yarn	5,297,	7,137,	7,378,	6,889,	7,009,
	Woollen Manufactures	9,698,	8,009,	9,463,	9,251,	7,278,
	„ Yarn	2,753,	2,656,	2,893,	2,008,	2,097,
	Silk Manufactures ...	1,547,	1,593,	1,607,	1,627,	1,362,
	„ Yarn	254,	214,	205,	157,	140,
	Linen Manufactures...	3,666,	2,942,	3,466,	3,456,	3,000,
	„ Yarn	1,353,	1,127,	3,169,	1,176,	1,261,
		49,337,	52,361,	57,328,	53,601,	46,359,
		1,609,	1,462,	1,528,	1,540,	1,359,
„ <i>Sewed.</i>	Apparel	2,689,	2,630,	3,113,	3,332,	2,620,
	Haberdy. and Mlnry.	4,298,	4,092,	4,641,	4,872,	3,979,
		2,391,	2,496,	2,768,	2,835,	2,372,
	Machinery	2,951,	3,120,	2,644,	2,739,	2,723,
	Iron	8,364,	7,909,	9,229,	9,813,	8,817,
	Copper and Brass.....	2,141,	1,743,	2,283,	1,927,	2,063,
	Lead and Tin	2,130,	1,359,	2,006,	2,045,	1,710,
	Coals and Culm	2,892,	2,745,	2,534,	2,582,	2,437,
		20,869,	19,372,	21,465,	21,941,	20,122,
		1,359,	1,292,	1,595,	1,438,	1,303,
METALS	Hardware.....	2,940,	2,859,	3,562,	3,560,	3,002,
		1,124,	1,105,	1,571,	1,637,	1,447,
	Beer and Ale	262,	379,	465,	512,	382,
	Butter	87,	95,	82,	94,	62,
	Cheese	169,	215,	184,	136,	126,
	Candles	248,	297,	277,	200,	240,
	Salt	368,	332,	230,	197,	158,
	Spirits	682,	436,	753,	784,	587,
	Soda	2,940,	2,859,	3,562,	3,560,	3,002,
		296,	330,	364,	343,	284,
Ceramic Manufcts.	Earthenware and Glass	183,	179,	166,	171,	194,
		1,859,	1,545,	1,626,	1,441,	1,505,
	Books, Printed.....	174,	170,	193,	158,	160,
	Furniture	353,	331,	396,	359,	333,
	Leather Manufactures	199,	494,	572,	630,	581,
	Soap	3,064,	3,049,	3,317,	3,102,	3,057,
	Plate and Watches ...	6,181,	3,309,	2,951,	2,560,	2,575,
	Stationery.....	5,624,	7,461,	6,865,	6,963,	5,913,
		93,672,	93,795,	101,724,	98,037,	86,310,
		6,181,	3,309,	2,951,	2,560,	2,575,
Remainder of Enumerated Articles		5,624,	7,461,	6,865,	6,963,	5,913,
Unenumerated Articles		93,672,	93,795,	101,724,	98,037,	86,310,
TOTAL EXPORTS		93,672,	93,795,	101,724,	98,037,	86,310,

SHIPPING.—FOREIGN TRADE.—(United Kingdom.)—First Nine Months (*January* — *September*), 1862-61-60-59. — *Vessels Entered and Cleared with Cargoes, including repeated Voyages, but excluding Government Transports.*

(First Nine Months.) ENTERED:—	1862.			1861.		1860.		1859.	
	Vessels.	Tonnage (000's omitted.)	Average Tonnage.	Vessels.	Tonnage (000's omitted.)	Vessels.	Tonnage. (000's omitted.)	Vessels.	Tonnage (000's omitted.)
	No.	Tons.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
<i>Vessels belonging to—</i>									
Russia	323	95,	294	307	91,	305	88,	269	77,
Sweden	714	117,	164	786	129,	815	126,	693	114,
Norway	2,360	483,	205	2,278	477,	1,978	430,	1,969	433,
Denmark	1,915	184,	96	1,821	176,	2,200	213,	1,949	192,
Prussia and Ger. Sts.	2,751	669,	245	2,777	637,	2,861	598,	2,692	589,
Holland and Belgium	1,279	177,	139	1,184	162,	1,231	170,	1,241	173,
France	1,415	118,	84	1,344	107,	1,377	115,	1,929	156,
Spain and Portugal	295	87,	297	354	84,	299	80,	311	72,
Italy & other Eupn. Sts.	611	172,	282	724	198,	732	206,	467	131,
United States	975	848,	870	1,572	1,342,	1,020	991,	871	849,
All other States	77	21,	272	10	3,	12	3,	16	5,
United Kingdm. & } Depds.	12,715	2,973,	235	13,157	3,406,	12,830	3,020,	12,407	2,791,
	15,840	4,700,	297	15,491	4,631,	14,596	4,206,	14,665	3,974,
<i>Totals Entered</i>	28,555	7,673,	269	28,648	8,087,	27,426	7,226,	27,072	6,765,
CLEARED:—									
Russia	308	91,	296	304	89,	284	83,	282	80,
Sweden	712	116,	163	799	132,	828	129,	698	117,
Norway	1,535	262,	173	1,519	247,	1,256	228,	1,431	277,
Denmark	2,347	225,	96	2,377	232,	2,613	251,	2,201	218,
Prussia and Ger. Sts.	4,122	792,	192	3,832	707,	3,651	666,	3,757	691,
Holland and Belgium	1,743	257,	147	1,505	213,	1,493	237,	1,525	229,
France	3,768	363,	96	3,957	372,	2,858	303,	2,864	307,
Spain and Portugal	300	93,	269	317	84,	271	72,	277	67,
Italy & other Eupn. Sts.	622	80,	289	834	233,	806	232,	636	184,
United States	897	795,	886	1,225	1,071,	1,150	1,091,	903	859,
All other States	111	31,	279	20	6,	12	4,	16	5,
United Kingdm. & } Depds.	16,465	3,205,	195	16,689	3,386,	15,222	3,296,	14,590	3,034,
	21,434	5,759,	269	20,730	5,252,	18,732	4,960,	18,981	4,895,
<i>Totals Cleared</i>	37,899	8,964,	236	37,419	8,638,	33,954	8,256,	33,571	7,929,

GOLD AND SILVER BULLION AND SPECIE. — IMPORTED AND EXPORTED. — (United Kingdom.) — Computed Real Value for the First Nine Months (January—September), 1862-61-60.

(000's at unit end omitted.)

(First Nine Months.)	1862.		1861.		1860.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
Imported from:—	£	£	£	£	£	£
Australia	4,650,	—	4,889,	—	4,639,	1,
So. Amca. and W. Indies	1,226,	4,606,	1,139,	4,118,	919,	3,783,
United States and Cal.	6,836,	83,	28,	26,	3,791,	796,
	12,712,	4,689,	6,056,	4,144,	9,349,	4,580,
France	89,	983,	2,471,	466,	92,	1,864,
Hanse Towns, Holl. & Belg.	402,	1,735,	703,	456,	22,	922,
Prtgl., Spain, and Gbrltr.	23,	91,	17,	120,	14,	217,
Mlta., Trky., and Egypt	8,	13,	42,	4,	31,	18,
China	—	—	—	—	—	—
West Coast of Africa	80,	3,	73,	2,	72,	4,
All other Countries....	1,075,	69,	559,	31,	210,	20,
Totals Imported	14,389,	7,583,	9,921,	5,223,	9,790,	7,625,
Exported to:—						
France	3,900,	515,	964,	908,	5,805,	433,
Hanse Towns, Holl. & Belg.	155,	501,	14,	701,	125,	469,
Prtgl., Spain, and Gbrltr.	1,872,	7,	674,	3,	896,	1,
	5,927,	1,023,	1,652,	1,612,	6,826,	903,
Ind. and China (viâ Egypt)	—	6,534,	581,	5,708,	1,076,	6,767,
Danish West Indies....	—	—	35,	33,	6,	22,
United States	36,	1,	7,037,	48,	7,	2,
South Africa	—	—	85,	—	2,	—
Mauritius.....	—	—	—	2,	—	—
Brazil	227,	19,	18,	119,	342,	120,
All other Countries....	5,010,	1,024,	749,	80,	196,	34,
Totals Exported	11,201,	8,601,	10,157,	7,602,	8,455,	7,849,
Excess of Imports ...	3,188,	—	—	—	1,335,	—
„ Exports ...	—	1,018,	236,	2,379,	—	224,

REVENUE.—(UNITED KINGDOM.)—30TH SEPT., 1862-61-60-59.

Net Produce in YEARS and QUARTERS ended 30TH SEPT., 1862-61-60-59.

[Unit 000's omitted.]

QUARTERS, ended 30th Sept.	1862.	1861.	1862.		Corresponding Quarters.	
			Less.	More.	1860.	1859.
	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.
Customs	6,201,	5,982,	—	219,	5,888,	6,576,
Excise	3,604,	4,221,	617,	—	5,089,	5,549,
Stamps	2,180,	2,013,	—	167,	2,053,	1,937,
Taxes	166,	160,	—	6,	166,	146,
Post Office	895,	870,	—	25,	800,	780,
Property Tax	13,046,	13,246,	617,	417,	13,996,	14,988,
	974,	991,	17,	—	2,281,	1,874,
Crown Lands	14,020,	14,237,	634,	417,	16,277,	16,862,
	67,	66,	—	1,	65,	62,
Miscellaneous	514,	298,	—	216,	316,	340,
Totals	14,601,	14,601,	634,	634,	16,658,	17,264,
			NET DECR. £249			

YEARS, ended 30th Sept.	1862.	1861.	1862.		Corresponding Years.	
			Less.	More.	1860.	1859.
	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.	£ Mlms.
Customs	23,863,	23,488,	—	375,	23,396,	24,809,
Excise	17,430,	18,624,	1,194,	—	20,070,	18,685,
Stamps.....	8,825,	8,426,	—	399,	8,267,	7,988,
Taxes	3,160,	3,130,	—	30,	3,257,	3,190,
Post Office	3,560,	3,470,	—	90,	3,370,	3,255,
Property Tax	56,838,	57,138,	1,194,	894,	58,360,	57,927,
	10,532,	11,133,	601,	—	10,310,	5,686,
Crown Lands	67,370,	68,271,	1,795,	894,	68,670,	63,613,
	296,	292,	—	4,	290,	282,
Miscellaneous	2,019,	1,243,	—	776,	1,850,	2,096,
Totals	69,685,	69,806,	1,795,	1,674,	70,810,	65,991,
			NET DECR. £120,620			

REVENUE.—(UNITED KINGDOM).—QUARTER ENDED 30TH SEPT., 1862 :—
APPLICATION.

An Account showing the REVENUE and other RECEIPTS of the QUARTER ended 30th September, 1862; the APPLICATION of the same, and the Charge of the Consolidated Fund for the said Quarter, together with the Surplus or Deficiency upon such Charge.

Received:—

Surplus Balance beyond the Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th June, 1862, viz.:—	£
Great Britain	—
Ireland	£746,183
	<hr/> 746,183
Income received in the Quarter ended 30th September, 1862, as shown on preceding page	14,600,983
Amount raised per Act 23 and 24 Victoria, cap. 109, on account of Fortifications, &c.	300,000
Amount received in the Quarter ended 30th September, 1862, in repayment of Advances for Public Works, &c.	388,195
	<hr/> £16,035,361
Balance, being the deficiency on 30th September, 1862, upon the charge of the Consolidated Fund in Great Britain, to meet the Dividends, and other charges, payable in the Quarter to 31st September, 1862, and for which Exchequer Bills (Deficiency) will be issued in that Quarter.....	3,429,902
	<hr/> £19,465,263

Paid:—

Amount applied out of the Income for the Quarter ended 30th September, 1862, in redemption of Exchequer Bills (Deficiency), for the Quarter ended 31st March, 1862	£
	1,548,323
Amount applied out of the Income to <i>Supply Services</i> in the Quarter ended 30th September, 1862	10,743,995
Charge of the <i>Consolidated Fund</i> for the Quarter ended 30th September, 1862, viz.:—	
Interest of the Permanent Debt	£5,519,782
Terminable Debt	671,526
Interest of Exchequer Bills	102,546
„ Deficiency Bills	Nil.
The Civil List	101,196
Other Charges on Consolidated Fund	476,519
Advances for Public Works, &c.	178,928
	<hr/> 7,050,497
<i>Surplus Balance</i> in Ireland beyond the Charge of the Consolidated Fund in Ireland for the Quarter ended 30th September, 1862, viz.:	122,448
	<hr/> £19,465,263

CORN.—*Gazette Average Prices (ENGLAND AND WALES) Third Quarter of 1862.*

[This Table is communicated by H. F. JADIS, ESQ., Comptroller of Corn Returns.]

Weeks ended on a Saturday 1862.		Weekly Average. (Per Impl. Quarter.)					
		Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
		<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
July	5	56 7	32 3	24 2	37 1	40 7	42 1
"	12	57 —	31 9	24 1	36 9	40 2	38 9
"	19	56 11	31 6	24 6	37 11	41 2	42 1
"	26	57 6	32 2	24 3	36 4	40 7	40 2
Average for July		57 —	31 11	24 3	37 —	40 7	40 9
August	2	57 8	33 8	24 6	37 2	41 3	41 1
"	9	57 10	32 6	25 3	38 11	41 8	40 —
"	16	57 4	32 3	25 3	37 2	41 8	39 —
"	23	57 9	32 4	26 3	37 3	42 7	38 9
"	30	58 4	34 —	24 11	35 4	42 8	38 7
Average for August		57 9	32 11	25 2	37 2	41 11	39 5
Sept.	6	58 4	36 —	25 1	36 8	42 —	40 1
"	13	55 10	36 7	24 7	35 9	41 8	40 6
"	20	54 9	37 2	23 9	35 6	41 2	40 5
"	27	53 2	36 2	22 8	36 5	41 —	40 6
Average for September ..		55 6	36 5	24 —	36 1	41 5	40 4
Average for the Quarter ..		56 10	33 8	24 6	36 9	41 4	40 1

RAILWAYS.—PRICES, *July—Sept.,—and* TRAFFIC, *Jan.—Sept., 1862.*

Total Capital Ex- pended Mlns.	Railway.	For the (£100). Price on			Miles Open.		Total Traffic first 39 Weeks. (unit 000's omitted.)		Traffic pr. Mile pr. Wk. 39 Weeks.		Dividends per Cent. for Half Years.		
		1st Sept.	1st Aug.	1st July	'62.	'61.	'62.	'61.	'62.	'61.	30 Jun. '62.	31 Dec. '61.	30 Jun. '61.
£					No.	No.	£	£	£	£	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
44,4	Lond. & N. Westn.	93 $\frac{3}{4}$	96 $\frac{1}{2}$	94 $\frac{3}{8}$	1,124	1,062	3,433,	3,357,	78	81	37 6	47 6	37 6
35,2	Great Western	65 $\frac{3}{4}$	73 $\frac{3}{4}$	71 $\frac{1}{2}$	992	964	2,260,	2,137,	71	57	5 —	30 —	22 6
13,8	" Northern	123 $\frac{1}{4}$	119 $\frac{3}{4}$	115 $\frac{3}{4}$	330	330	1,066,	1,036,	82	80	45 —	77 6	37 6
16,7	" Eastern	44 $\frac{3}{4}$	60 $\frac{1}{2}$	55 $\frac{1}{2}$	646	646	1,051,	1,022,	41	41	20 —	30 —	16 3
10,4	Brighton	120	124	124	241	241	752,	709,	80	75	50 —	70 —	50 —
14,1	South-Eastern	84 $\frac{3}{8}$	85 $\frac{1}{2}$	82 $\frac{3}{8}$	306	306	897,	855,	75	72	42 6	50 —	41 8
12,6	" Western	99 $\frac{3}{4}$	103 $\frac{1}{4}$	100 $\frac{3}{8}$	442	400	—	—	—	—	40 —	55 —	40 —
47,2		90	94	91	4,081	3,949	9,459,	9,116,	67	66	34 3	51 —	35 1
22,0	Midland	127 $\frac{1}{8}$	130 $\frac{3}{4}$	126 $\frac{1}{8}$	630	614	1,532,	1,532,	62	63	55 —	70 —	62 6
19,5	Lancsh. and York.	106 $\frac{3}{8}$	108 $\frac{1}{3}$	105	395	395	865,	925,	56	60	37 6	50 —	45 —
11,7	Sheffield and Man.	39	39 $\frac{3}{4}$	39	236	236	544,	594,	59	64	—	12 6	7 6
23,8	North-Eastern	96	99	96 $\frac{1}{2}$	894	867	1,485,	1,459,	43	43	42 6	50 —	52 6
4,5	South Wales	68 $\frac{1}{2}$	69	66	—	—	—	—	—	—	32 6	30 —	27 6
81,5		87 $\frac{3}{4}$	89	88	2,155	2,112	4,426,	4,510,	52	54	41 10	42 —	39 —
9,1	Caledonian	109 $\frac{1}{4}$	108 $\frac{3}{4}$	105 $\frac{3}{4}$	230	230	614,	607,	68	67	50 —	55 —	50 —
5,3	Gt. S. & Wn. Irln.	106	109	106	329	329	316,	319,	25	25	50 —	50 —	50 —
43,1	Gen. aver.	91	93	92	6,895	6,620	14,815,	14,552,	59	60	39 —	48 6	38 7

Consols.—Money Prices 1st Sept., 93 $\frac{1}{2}$ to $\frac{5}{8}$,—1st August, 93 $\frac{7}{8}$ to 94,—1st July, 91 $\frac{5}{8}$ to $\frac{3}{4}$.
 Exchequer Bills. ,, 15s. to 21s. pm. ,, 25s. to 28s. pm. ,, 6s. to 9s. pm.

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the THIRD QUARTER (July—Sept.) of 1862.

1	2	3	4	5	6	7
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.	
Liabilities.		Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.
Notes Issued.	DATES. (Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.		
Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1862. Per ann.
30,08	July 2 ...	11,02	3,63	15,43	21,61	22 May, 3 p. ct.
30,84	„ 9 ...	11,02	3,63	16,19	21,82	10 July, 2½ „
31,46	„ 16 ...	11,02	3,63	16,81	22,36	
31,85	„ 23 ...	11,02	3,63	17,21	22,20	24 „ 2 „
32,21	„ 30 ...	11,02	3,63	17,56	22,19	
31,78	Aug. 6 ...	11,02	3,63	17,13	22,59	
31,57	„ 13 ...	11,02	3,63	16,92	22,07	
31,46	„ 20 ...	11,02	3,63	16,84	22,03	
31,52	„ 27 ...	11,02	3,63	16,87	21,26	
31,66	Sept. 3 ...	11,02	3,63	17,01	21,51	
31,43	„ 10 ...	11,02	3,63	16,78	21,03	
31,21	„ 17 ...	11,02	3,63	16,56	20,79	
30,98	„ 24 ...	11,02	3,63	16,33	20,50	

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES. (Wdnsdys.)	Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.	
Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
14,55	3,16	9,67	13,85	,64	July 2	11,08	21,53	8,47	,79	41,88
14,55	3,21	5,43	17,20	,69	„ 9	10,95	20,24	9,02	,87	41,08
14,55	3,24	5,22	17,06	,73	„ 16	10,95	19,89	9,10	,86	40,81
14,55	3,25	5,29	17,20	,74	„ 23	10,95	19,58	9,65	,85	41,04
14,55	3,26	5,89	16,90	,74	„ 30	11,00	19,44	10,02	,88	41,35
14,55	3,35	6,16	15,23	,79	Aug. 6	10,99	19,08	9,19	,82	40,08
14,55	3,35	6,84	14,59	,85	„ 13	10,99	18,85	9,50	,86	40,19
14,55	3,63	7,15	14,57	,83	„ 20	11,04	19,18	9,43	,83	40,47
14,55	3,63	7,51	14,86	,82	„ 27	11,04	18,97	10,26	,81	41,08
14,55	3,63	7,67	14,97	,84	Sept. 3	11,07	19,64	10,15	,81	41,68
14,55	3,63	8,77	13,81	,86	„ 10	11,11	19,29	10,40	,83	41,63
14,55	3,63	9,07	13,73	,82	„ 17	11,11	19,49	10,42	,80	41,82
14,55	3,63	9,27	13,82	,80	„ 24	11,25	19,52	10,48	,83	42,09

CIRCULATION.—COUNTRY BANKS.

Average amount of Promissory Notes in Circulation in ENGLAND and WALES, on Saturday, in each Week during the THIRD QUARTER (July—September) of 1862; and in SCOTLAND and IRELAND, at the Three Dates, as under.

ENGLAND AND WALES.				SCOTLAND.				IRELAND.		
DATES.	Private Banks. (Fixed Issues, 4·35.)	Joint Stock Banks. (Fixed Issues, 3·30.)	TOTAL. (Fixed Issues, 7·65.)	Four Weeks, ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2·75.)	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6·35.)
1862.	Mlns. £	Mlns. £	Mlns. £	1862.	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £	Mlns. £
July 5	3,16	2,82	5,98	July 26	1,48	2,54	4,02	2,79	2,40	5,19
„ 12	3,16	2,84	6,00							
„ 19	3,13	2,84	5,97							
„ 26	3,08	2,77	5,85							
Aug. 2	3,05	2,75	5,80	Aug. 23	1,45	2,49	3,94	2,69	2,34	5,03
„ 9	3,05	2,75	5,80							
„ 16	3,04	2,74	5,78							
„ 23	3,02	2,74	5,76							
„ 30	3,00	2,75	5,75							
Sept. 6	3,03	2,77	5,80	Sept. 20	1,45	2,53	3,98	2,69	2,38	5,07
„ 13	3,09	2,81	5,90							
„ 20	3,14	2,85	5,99							

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1	2	3	4	5	6	7	8	9	10	11	12	13	14
DATES.	Paris.				Hamburg.			New York.	Calcutta.		Hong Kong.	Sydney.	Standard Silver in bars in London.
	London on Paris.	Bullion as arbitrated.		Prem. or Dis. on Gold per mille.	London on Hambg.	Bullion as arbitrated.			India House.	At Calcutta on London.			
		Agnst. Engd.	For Engd.			Agnst. Engd.	For Engd.						
	3 m. d.				3 m. d.			60 d. s.	60 d. s.	6 m. s.	6 m. s.	30 d. s.	pr. oz.
1862.		pr. ct.	pr. ct.			pr. ct.	pr. ct.	pr. ct.	d.	d.	d.	pr. ct.	d.
July 5 ..	25·52½	—	0·3	1 p.	13·8¾	—	0·2	118	—	24½	55	1 p.	61
„ 19 ..	45	—	0·3	½ „	8	—	0·3	121	—	„	„	„	„
Aug. 2 ..	42	—	0·1	1 „	8	—	0·3	130	—	„	„	„	„
„ 23 ..	47	—	0·2	1 „	8½	—	0·6	125	23¾	„	„	„	61⅜
Sept. 6 ..	45	—	0·1	1 „	8	—	0·6	127	„	„	„	„	„
„ 27 ..	45	—	0·1	par	8¼	—	0·2	130	„	„	„	„	„

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INDEX TO VOL. XXV, YEAR 1862.

	PAGE
ADMINISTRATION, see <i>Wills</i> .	
AGRICULTURAL LABOURERS, Earnings of, in Scotland and Ireland (see <i>Purdy</i>)	425
AGRICULTURE.— <i>Agriculture in Holland</i>	398
Area under cultivation, nature of crops, and average production	398-9
Rent of land, wages of labourers, &c.	399
Taxes, live stock	400
ALBERT, Prince Consort, Minutes of Special Meeting on his Death	1
ANNUITIES (Terminable), question relative to income tax on	361-4
APPOINTMENTS (Government), plan of open competition for inferior	64
ARMIES, STANDING, wastefulness of, as exemplified in France, &c.	522-3
ASSURANCE (LIFE), exemption of premiums on, from income tax	360
AUSTRALIA (SOUTH), census of (see <i>Census</i>)	393
BANK OF ENGLAND.	
weekly account of the issue and banking departments:	
Fourth quarter, 1861	103
First „ 1862	295
Second quarter, 1862	423
Third „ 1862	558
BANKS (COUNTRY), amounts of promissory notes in circulation (in Great Britain):	
Fourth quarter, 1861	104
First „ 1862	296
Second quarter, 1862	424
Third „ 1862	559
BANKS, JOINT STOCK, quinquennial analysis of the transactions of the .	
Metropolitan Joint Stock Banks	538
BENGAL (LOWER), prison statistics and discipline in (see <i>Mouat</i>)	175
BERG (Dr.), on the mode of obtaining Swedish statistics, and on comparative statistics	116-18
BIRTH (Concealment of), the punishment of, not a cause of infanticide	225
BIRTHS, <i>tables</i> of, in Sweden	159-67
(MULTIPLE), large ratio of, in Sweden	132-3
(STILL), statistics of, in France and Belgium	224
— want of returns of, in England	223
BODY (Human), growth of, in height and weight (see <i>Danson</i>)	20
BRITISH ASSOCIATION for the Advancement of Science (Section F), Economic Science and Statistics—List of Papers read October, 1862	525
address of the President (see <i>Chadwick</i>)	502
BUDGET (THE FRENCH), for 1863, its principal provision, conversion of stock, new taxes, &c.	79
BULLION and specie, gold and silver, imported and exported:	
Jan.—Dec., 1859-61	99
Jan.—March, 1860-62	291
Jan.—June, 1860-62	419
Jan.—Sept., 1860-62	554

	PAGE
CENSUS, Wargentín's memoir on those of Sweden, benefit of its publication	112
mode of operation of the "Tabell Commission" of Sweden, in taking	123
<i>Census of France in 1861, Outline of Two Articles on, by M. Block (by F. W. Haddon)</i>	72
Comparative annual increase of population from 1826 to 1861	72
Decrease in some departments	72
Comparison of progress of population with other European countries, showing a very low rate in France	73
Comparison of birth, marriage, and death-rates	73
Causes of low birth-rate in France	73
<i>Census of South Australia, 1861</i>	393
Extent of occupied districts, increase of population by natural increase and immigration, &c.	393
85 per cent. of population country residents	393
Equality of the two sexes in numbers	394
Age, occupations, education, and nationalities	394-5
Increase of substantial dwellings, &c.	395
Numbers and condition of aborigines	396
CHADWICK (Edwin). <i>Address as President of Section F (Economic Science and Statistics) of the British Association, October, 1862</i>	502
Objections to economical science by Carlyle and Ruskin, for deficiencies in mental and metaphysical subjects, which belong to entirely different provinces of science	502-3
Intimate relations of economical science with high public morality	503-4
Filth and squalor of cities, the seats of ancient art, from the want of economic principles	504
Right of economical science to consider a human being simply as an investment of capital	504
Calculation of the actual cost of a working man, and benefits likely to be derived from more attention being given to him as an investment	505-6
Annual excess of preventible mortality, diminution during periods of distress, &c.	506-7
Saving by sanitary measures, as illustrated in the army	507-8
Ditto, as illustrated by convict and emigrant contracts for payments for those only landed alive	509
Productive power of English labourers much greater than those of other countries; and economic conclusions from ditto	509-10
Inferiority, on economic grounds, of the Jews to the English, from their loss of one-third of the year in Sabbaths, Sundays, and festivals	511
Loss of time from feast days, fairs, &c., in France, Prussia, and Ireland, accompanied by a lower average duration of life than in England	511-12
Economic loss from overworking factory children, and benefits of the Factory Act now acknowledged by its opponents	512-13
Mr. Bianconi's illustration of the economic gain of keeping the seventh day's rest for his horses	514
Valuable assistance of mental relief and stimuli in giving energy to work	514
Increase of physical force from personal cleanliness	514-15
Examples of the greater productiveness of educated, over uneducated, labour	516-18
Injury to children from excess of hours employed in daily mental instruction	518
Gain of one-fifth in power by physical training	519
Exemplifications of the concurrence of economic with religious and moral principle in public education	519-21
— Royal Military Asylum and Greenwich Naval School	520-1
Wastefulness of standing armies, and economical advantages to France of the reduction of hers	522-3
General conclusions	524
CHINA, progress of the trade of England with, since 1833 (see <i>Sykes</i>)	3
protestant missionary labours in	16-18
Christian origin of the Taeping rebellion in	18
CHINESE, percentage of, among diggers in Victoria	397
CHOLERA, ravages of, in Sweden	136-7
CLEANLINESS, personal, increase of physical force from	514-15
COLONIES, question of their paying for their own defence	350
utility of, as fields for emigration (see <i>Merivale</i>)	491
question of the non-necessity of their retention	491
importance to our well-being of continued political relations with	496
COLUMBIA (BRITISH), the new gold region in, yield of gold, prices, wages, aggregate and average earnings of miners, &c.	80

	PAGE
CONGRESS (ITALIAN SCIENTIFIC), Tenth. Copy of circular for its meeting in September, 1862	389
— programme	389
COPYHOLD enfranchisement commission	305-7
CORN, average weekly prices (with monthly and quarterly averages) :	
Fourth quarter, 1861 102	Second quarter, 1862 422
First „, 1862 294	Third „, 1862 557
COTTON, reduction of charge of conveyance of, by railways in India, &c.	392
COTTON TRADE, <i>the Great Crises in the History of</i> , 1852-61.	527
rise of prices from 6 $\frac{3}{4}$ d. in 1853, to 1s. 6 $\frac{1}{4}$ d. in July, 1862	527-9
<i>table of import, export, consumption, and prices</i> , 1801-61	530-3
COTTON MANUFACTURES, number of persons employed in	378
the distress in, due to over production	380-1
COTTON SUPPLY, <i>extent of the deficit in</i>	402
Capability of East India supplying the place of American cotton	402
Great increase in consumption of Surat cotton since January	402
State of imports this year, and stocks in hand and at sea, as compared with 1861	402-3
Resale of cotton by manufacturers, in preference to employing their operatives on it	404
Estimate of growth in India	404
Exports of cloth and yarn in 1860-62	404
CRIME, on the prevention of (see <i>Hill</i>)	497
CRIMINALS, number of habitual, in England	497
means of attacking, the fixing the cost of repression on property, harbouring them	500
CROFTERS and cottars in Scotland	426
CURRENCY (inconvertible paper), <i>effects in New York in November</i> , 1862	532
DANSON (J. T.) <i>Statistical Observations on the Growth of the Human Body (Males) in Height and Weight, from Eighteen to Thirty Years of Age, from records of the Borough Gaol of Liverpool</i>	20
Importance of physical maturity as the basis of every other	20
Insufficiency of Quetelet's figures for reliable data as to height, &c.	20-1
Fulness of the record of particulars in the borough gaol	21
Modes of taking account of the prisoners	22
Imperfect accuracy of the record of <i>age</i> , and its causes	22
<i>Table of average heights between 18 and 30</i>	24
Comparisons with French and Belgian observations	24-5
<i>Table of average weights</i>	25
Conclusions	26
DANVERS (Mr.) see <i>Railways in India</i> .	
DEBTS (NATIONAL), on the progress and economical bearings of, in this and other countries (see <i>Levi</i>)	313
of England, rise of, 1691-1837	315
— progress of 1691-1861	334-7
— non-increase of, since 1820	316
— comparison with the national wealth, and with that of other countries	316-18
— proposal for annihilating in 100 years, by terminable annuities	319
of other countries of Europe	327-9
of various countries, amounts of	333-4
increase of foreign	321
of France, progress of, &c.	322-4
of United States, amounts, &c.	325-6
DIETARIES of unions in Ireland, &c.	457-60
of Irish workhouses more nutritious than English	460-1
(Prison) of Bengal, nature, cost, &c., of	186-94
DISTRESS and resources of Lancashire, 1862, &c.	535
see <i>Cotton</i> .	

	PAGE
DRAINAGE of lands, Acts, advances for commission of sewers, &c.	{ 301-3 307-10
ECONOMIC SCIENCE, intimate relations of, with high public morality	503-4
EDUCATION (POPULAR) in England and Wales, resources of (see <i>Mann</i>)	50
— great increase in, since 1818	51
— favourable comparison of, in England, with European countries	51
— rapid forgetfulness of	54-5
EMIGRATION to British Colonies and United States, 1815-61	537
utility of colonies as fields for (see <i>Merivale</i>)	491
why beneficial to the mother country	492
EXCHANGES (FOREIGN) quotations on London, &c. :	
Oct.-Dec., 1861 104	April-July, 1862 424
Jan.-April, 1862 296	July-Oct., 1862 559
EXPORTS, United Kingdom :	
Jan.-Dec., 1857-61 97	Jan.-June, 1858-62 417
Jan.-Mar., 1858-62 289	Jan.-Sept., 1858-62 552
FEVER in Oxford, notice of, by Dr. Acland	89
FRANCE, census of, in 1861 (see <i>Census</i>)	72
the budget for 1863, conversion of stock, and proposed new taxes and other projects of M. Fould	79-80
see <i>Armies</i> ; <i>Debt</i> (National) ; <i>Illegitimacy</i> , &c.	
FUNDS, steadiness of English compared with foreign	321
value of 3 per cent. consols, 1786-1860	338
GERMANY, social condition of, in the seventeenth and eighteenth centuries (notice of M. Freytag's work)	77
degraded condition and serfdom of the peasantry in the eighteenth century	77
GOLD. <i>Decreasing Production of Gold in Victoria (Australia)</i>	396
Probable average of earnings of miners	396-7
Fluctuations of wages, showing decline since 1854	397
Percentage of Chinese diggers	397
Statistics of quartz mining operations	397
Value of the mining plant in the colony	398
GOLD, gradual decrease in its production in Australia, 1856-61	77
new gold region of British Columbia, wages, prices, aggregate earnings of miners, &c.	80
GUTZLAFF'S "Christian Union," particulars of	17
HEALTH, state of the public :	
Quarter Dec., 1861 88	Quarter June, 1862 410
,, Mar., 1862 279	,, Sept., 1862 543
HEIGHT of body, table of average, between 18 and 30 years of age	24
HENDRIKS (Frederick). <i>On the Vital Statistics of Sweden, from 1749 to 1855</i>	111
Prejudice against, and opposition to, statistical inquiries	111
Early example set by Sweden in publication of details of population	111-12
Population of Sweden in 1757-75, its thinness and dispersion	111
Benefit to other countries of the translation and publication of Wargentin's "Memoir on Swedish Censuses in the Transactions of the Royal Academy of Stockholm"	112
Recommendation of population tables by Price and De Moivre	113
Drs. Price, Bailly, and Malthus's calculations from the Swedish tables of Wargentin	113-14
Milne's accurate calculations, and notice of points of distinction between Sweden and England	114-15
Nicander's continuation of the Swedish tables	115-16
Dr. Berg's observations on the mode of obtaining the statistics	116
Obstacles to the diffusion of information on the subject of Swedish statistics	117
The present the first publication in England of the past statistics of Sweden, as distinct from Finland	118
The comparative statistics of other countries due to Dr. Berg	118

	PAGE
HENDRIKS (Frederick). <i>On the Vital Statistics of Sweden—contd.</i>	
Law for the keeping of the registers by the clergy, and its superiority to the English system	119
Appointment of a sanitary commission, and origin of national medical statistics, &c.	120
List of documentary records relative to population, in the possession of Sweden	120-2
Mode of operation of the "Tabell Commission" in census enumerations	123
Explanation of Tables A, B, C (general results)	123-7
— of Tables D, E, F (progress of population)	127-30
— of Tables G, H, I, K (conjugal condition of the people)	130-1
— of Tables L to S (birth-rate, illegitimacy, &c.)	131-3
— of Tables T to Z (death-rate, suicides, &c.)	133-7
Numerous and elaborate statistical facts, and analysis of them in these tables	124
Expectation of life	126-7
Ratio of increase in Sweden one-third less than in the United Kingdom	128
Exceptional character of Sweden, in the very small number of town to country population (one-tenth)	128
Density of population in Sweden only one-eleventh that of England	128
Statement showing the small average population of towns	129
Threefold increase of illegitimacy since 1785	132
Large ratios of multiple births in Sweden	132-3
Great excess in mortality of town districts	134
Increase of suicides, five times, since 1780	135
Comparative statement of decrease in deaths from small-pox, since vaccination, from 7·83 to 0·09 per cent.	135
Description of the ravages of plague and cholera in Sweden	136-7
Tables (A). Population of Sweden, and statistical results relating thereto, 1749-1855	138-43
— (B). Proportion who died in each year of life	144-7
— (C). Life tables for Sweden	148-50
— (D). Increase of population	151-3
— (E and F). Proportion of rural to urban population and of sexes, in various countries	154-5
— (G to K). Marriages: various proportions, civil position, ages &c.	156-9
— (L, M). Births: proportions, &c.	159-62
— (N). Illegitimacy	163-4
— (O to S). Sexual ratio, still-births, ages of women, deaths in child-bed, &c.	165-7
— (T, U). Deaths: proportions, &c.	168-9
— (W.) Ditto, distribution in months	170-1
— (X.) Suicides	172
— (Y, Z). Deaths, from accidents, small-pox, &c.	173-4
HILL (Edwin). <i>On the Prevention of Crime</i>	497
Numbers of habitual criminals (thieves, &c.) in England and Wales, and amount of property stolen	497
Moral evils connected therewith; contamination of honest children; and fate of children born to crime	498
Necessity of premises for their illicit work, an essential condition of the existence of the predatory class	498
Question whether the criminal class may not be attacked through the landlords who harbour them	498-9
Means to be adopted, the fixing the tax or cost of repression exclusively on property harbouring the predatory class	500
Probable consequences attending the consequent dislodgement of so large a numbers of offenders	500-1
Analogous circumstance of the suppression of the Whitefriars "sanctuary" in the seventeenth century	501
HOLLAND, agriculture in (see Agriculture)	398
HOSPITALS. <i>Statistics of the General Hospitals of London, 1861</i>	384
Resolution of the Guy's Hospital meeting, for uniform registration of patients	384-5
Table of general results of admissions, relief, deaths, &c.	384-5
— medical and surgical cases, and average number of patients, and mean residence	386-7
— rate of mortality and admissions and deaths in general and special wards	388
ILLEGITIMACY, statistics of (see Lumley)	219
table, showing proportion to gross number of births, 1841-59	221
supposed increase, 1830-42, based on errors in returns	222
amount of, in different counties, 1842-59, &c.	227-31
question of race, British, Saxon, or Danish, as affecting	235
in different towns	238-40
supposed causes of non-increase of, in England	274
(Pauper) changes in law of bastardy, and their effects; percentage in unions, &c.	245-56

	PAGE
ILLEGITIMACY in Scotland	256-62
do., effect of the Scottish law legitimatizing children born before marriage, on the increase of	261-2
in foreign countries	263-74
in France	266-8
in Sweden, threefold increase of, since 1785	132
— tables of	163-4
IMPORTS, United Kingdom :	
Jan.-Nov., 1857-61 96	Jan.-May, 1858-62 416
Jan.-Dec., 1858-61 287	Jan.-Aug., 1858-62 551
Jan.-Feb., 1858-62 288	
INCLOSURE Acts, table of, 1800-61	312
INCLOSURE COMMISSION, its powers and principle on which exercised (see <i>Tottie</i>)	297
INCOME TAX, an indiscriminating one reconsidered (see <i>Sargent</i>)	339
the cost of Government principle the proper measure of taxation in	340-52
on terminable annuities, questions relative to	361-4
Mr. Warburton's opinion of a uniform rate not tangible	366-7
objections to Dr. Farr's scheme of capitalization	367-8
objections to Mr. Mill's plan for non-taxation of savings, &c.	369-71
arguments for the taxation of the excess above £100 only	372-4
INDIAN railways in 1861-2 (see <i>Railways</i>)	390
IRELAND, see <i>Agricultural Labourers</i> , &c.	
LABOUR, greater productiveness of educated over uneducated	516-18
and wages in Victoria, 1861	75
in its penal and reformatory relations in Lower Bengal	206-11
LABOURERS (English), productive power of, much greater than those of other countries	509-10
loss of time to Jewish, Irish, and continental, from excess of feast days, &c.	511-12
see <i>Agricultural Labourers</i> .	
LANCASHIRE, extent of pauperism in the distressed unions in (see <i>Purdy</i>)	377
annual value of real property in, in 1843 and 1860	379-80
the distress in, due more to excessive over-production than to the failure of the cotton supply	380-1
distress and resources of, in 1862	535
comparative poor-rate expenditure in 1842-60	535
LAND Legislation in New South Wales, 1861	74
conditions relative to the selection and conditional purchase of land in New South Wales	74-5
LEVI (Leone). <i>On the Progress and Economical Bearings of National Debts in this and other Countries</i>	313
Necessity of resorting to loans for sudden emergencies, but objections to them as throwing our own burdens on posterity	313-14
Expenses of a war a moral check on the ambition and lust of conquest in nations	314-15
Rise of our national debt from 1691 to 1837	315
Amount of stock created, 173 <i>l.</i> for every 100 <i>l.</i> obtained	316
Non-increase of the debt since 1820	316
Comparison of the debt and its interest with population, national wealth, expenditure and income, from 1801 to 1861, showing its comparative decrease	316-17
Comparison of debt with that of other countries	318
Difficulties frustrating any attempt at a continuous sinking fund	318-19
Proposal for annihilating the national debt in one hundred years, by its conversion into terminable annuities	319
Error of supposing the national debt to be beneficial, &c., and easy formation of other parliamentary securities for investment	320
Steadiness of English compared with foreign securities	321
Increase of foreign national debts	321
France, details of the extraordinary credits, loans, &c., 1851-61	321-2
— notice of the progress of the public debt from time of Louis XIV	322
— progress of ditto, 1850-60	323
— operation of the conversion of the 4½ into 3 per cent. stock, and its effects	323-4

LEVI (Leone). *On the Progress of National Debts, &c.—contd.*

United States, credit due to them for twice paying off their entire public debt	325
— amount of debt, 1852–61, and present gigantic expansion	325
— increase in wealth and resources of each State, 1850–60	326
Italy, debt of 90 millions sterling in 1861, prospects	327
Austria, progress of the debt, 1811–60	327
Prussia, Russia, Mexico, Turkey, progress of their debts since 1850	328
Only two countries exempt from debt, Switzerland and Paraguay	329
Unjustifiable character of foreign loans to countries carrying on war	329
Funded and unfunded debt of United Kingdom, 1861	331
Capital of terminable annuities, 1860	331
Charges on, and cost of management of, debt, 1860	332
Number of persons entitled to dividends, 1860	333
Amount of national debts and relation to public expenditure in various countries	333–4
Progress of British national debt, 1691–1861	334–7
Value of 3 per cent. Consols, 1786–1860	338

LIFE, expectation of, in Sweden 126–7

LUMLEY (W.G.) *Observations upon the Statistics of Illegitimacy.* 219

The picture of the morals of this metropolis, drawn darker than the reality, by Mr. Acton and others	219
Statistics of illegitimacy in England and Wales generally	220–6
Particulars of form of registration	220
Illegitimacy greater than can be inferred from the register	220
Table, showing proportion of illegitimate to gross number of births, 1841–59	221
Supposed large increase of illegitimacy between 1830–42, based on errors in the earlier returns	222
Illegitimate children registered in various counties, 1834–7	223
Want of returns of still-born children in England	223
Statistics of still-born children in France and Belgium, showing excess among illegitimate ones	224
Punishment of the offence of “concealment of birth” not a cause as supposed of the vast amount of infanticide	225
Ratio of marriages to population, 1844–60	226
Numbers of illegitimate children in different counties, 1842–59	227
— ditto to every 100 births	228–9
— relative positions of counties as to amount of illegitimacy	230–1
Highest rate of illegitimacy found in counties most spare of population	232
Proportion of marriages, signatures, early marriages, and illegitimate children in each county	233–5
Questions of race, British, Saxon, or Danish, as affecting illegitimacy	235
Tables of concealment of births, disobeying bastardy orders, and prostitutes in each county	236–8
Illegitimacy in different towns	238–40
Influence of the seasons of the year on illegitimacy, not important	241
Difference between sexes in illegitimate births (greater number of males than among legitimate)	242–5
Pauper illegitimacy, changes in the law of bastardy, and their effects, &c.	245–7
Table, &c., of percentage of illegitimacy in unions, 1849–59, showing gradual decrease	248–9
— ditto in counties, 1835–57	250–1
— comparative, of pauper bastardy and industrial statistics, in counties	252–6
Illegitimacy in Scotland	256–62
— tables of percentage of illegitimacy, 1856, 1859, &c.	257–8
— division of ditto into insular, mainland, and town, 1855–6	259
— excess of illegitimacy in well educated districts, and of improvident marriages where education is at a low ebb	260–1
— question discussed of the effect of the Scottish law legitimatizing children born before marriage, on the increase of illegitimacy	261–2
Illegitimacy in foreign countries	263–74
— tables, &c., showing excessive percentage for Bavaria, Saxony, and Wurtemberg	264–5
— statistics of illegitimacy in France, by M. Legoyt	266–8
— tables of proportion of marriages to density of population in different countries	268–9
— excess of illegitimacy in rural districts in Britain, and in towns on the Continent	271
— illegitimate births 50 per cent. in Vienna, Prague, &c.	272
— question of the effect of prostitution in London in checking illegitimacy, and accounting for low average of 3 per cent.	273
Supposed causes of the non-increase of illegitimacy in England	274

LUNATICS (PAUPER), percentage in Great Britain 33

	PAGE
MANN (Horace). <i>The Resources of Popular Education in England and Wales; Present and Future</i>	50
Points to be considered: our existing and our future provision	50
Almost all children at some time or other on the books of some school	50-1
Great increase in proportion to population since 1818, 1 in 17 to 1 in 7	51
Favourable comparison with European countries	51
Average periods over which tuition extends	52
Numbers of schools and scholars attached to religious persuasions, &c.	53
Total cost and sources of income	53-4
Proportion of scholars successfully educated (1 in 8)	54
Rapid forgetfulness of education, as exemplified in examination of letter carriers, &c.	54-5
Gradual decrease of signatures by marks to marriage registers, 1841-60	55-6
Large number of small poor parishes not receiving Government aid	56-7
Proportions of the Government grant to different religious communities	57
Its distribution (80 per cent.) to the established church, proportionate more to its wealth than numerical position	58
Statement of the three sources of income for schools, and their relative importance	59
Question as to the number of private self-supporting schools, and modes of increasing them	60-1
— inspection of private schools and examination of their masters	61
— suggestion for increase of schools connected with benefit societies	62
Calculation relative to the ability of the people to increase their school contributions	63
Prize schemes, and plan of open competition for inferior Government appointments	64
Beneficial effects on the retention of knowledge of a more extended adoption of evening schools	65-6
Increase of funds from restoring educational charities to their proper objects, &c.	67
The expense of the training colleges principally defrayed by Government	68
Different computations of probable amount of public taxation required	68-9
Parliamentary grants, 1839-61, income of educational societies and income from school fees	71
MARRIAGES, <i>tables of</i> , in Sweden	156-9
ratio of, to population, 1844-60	226
<i>tables of proportion of</i> , to population in different countries	268-9
see <i>Registration</i> .	
MERIVALE (Herman), <i>on the Utility of Colonies as Fields for Emigration</i>	491
Question, on free trade principles, of the non-necessity of retaining colonies under the dominion of the mother country	491
Enumeration of the causes why emigration is beneficial to the mother country	492
Diminution in the rate of increase of the populations of Western Europe since 1845	492
The tendency of population to increase beyond subsistence, balanced in England by emigration	492-3
The same principle balanced in France by diminution of the fertility of marriages	493-4
Inexpensiveness of emigration without colonization, as illustrated by the United States, compared with Australia and Canada	495
Serious impending effects of the closure of America as an outlet for our superabundant population	495
Importance to our well-being, of continued colonization, and of political relations with our colonies	496
METEOROLOGICAL TABLES :	
Dec. quarter, 1861 94 | June quarter, 1862 414	
March „ 1862 285 | Sept. „ 1862 549	
METEOROLOGY of England Wales, remarks on the weather by James Glaisher :	
Dec. quarter, 1861 92 | June quarter, 1862 412	
March „ 1862 283 | Sept. „ 1862 547	
MILNE'S population calculations, &c.	114-15
MISSIONARIES (Protestant), labours in China	16-18
MORTALITY, reduction in rate of, during distress in manufacturing districts, not proved to be caused by inadequate supply of food	507-44-5
annual excess of preventable, &c.	506-7
MORTALITY of England and Wales :	
Autumn quarter, 1854-61 88 | Spring quarter 1855-62 410	
Winter „ 1855-62 280 | Summer „ 1855-62 543	

	PAGE
MORTALITY of Sweden, great excess in town districts	134
— <i>tables of</i>	168-74
of prisoners in Lower Bengal, sickness, &c.	194-206
MOUAT (Frederic John), on <i>Prison Statistics and Discipline in Lower Bengal</i>	175
Prison discipline in Bengal, past and present	175-80
State of the prisons before 1838, like that of the second stage of prison reform in England	176
Recommendations of the Bengal Prison Discipline Committee, 1838, for central penitentiaries, &c.	176
Appointment (in 1853) and duties of the inspector of prisons	178
Alipore gaol the penitentiary of Lower Bengal	179
List of prisons in the lower provinces	180
Nature of the statistical information in the Bengal Prison Returns	180-2
Adoption of uniform monthly returns—points embraced in the forms	181
Resolution of the Statistical Congress, 1860, on prison statistics	182
Prisoners in custody, and their disposal, 1858-60	183-6
Bengal prison dietaries, their nature and cost	186-94
— original plan of money payments, and alteration to ration system	186-7
— scales of food allowed	187-8
— average of deaths to admissions, in five diseases	189-90
— the food to be calculated not by the standard of the honest labourer, but by the convict's health	190-1
— four different diet scales suggested for different Indian races	192-3
Sickness and mortality of prisoners in the lower provinces	194-206
— excessive mortality in convicts employed in clearing jungle for roads, and in building a sea wall in a salt marsh	194-5
— mortality in Lower Bengal, 1849-60	195
— average strength of prisoners and ratio of deaths in 54 gaols, 1849-59	196-8
— deaths arranged in months, 1858-9	199-200
— influence of bad health previous to conviction on mortality	201
— sickly character of the Hindoos, and their inability to bear transportation to other districts	203-4
— comparison of mortality of prisoners, free population, and Sepoys, and sources of fallacy as to health of the latter	204-5
Labour in its penal, pecuniary, and reformatory relations	206-11
— want of any system of in-door labour, and nominal character of sentences to hard labour	206
— employment of convicts in profitable works of industry, tables of profits, cost of maintenance, &c.	207-10
— advantages of ditto, argument against supposed injury to honest labourer	210-11
Cost of prisoners in Bengal, tables, &c.	211-14
Escapes and re-apprehensions	215
Education of prisoners in Bengal	215-17
— Government objections to Christian proselytizing in prisons	217
Probable uniformity of judicial statistics of India since the transference of the government to the Crown	218
NATIONAL DEBTS, see <i>Debts</i> (National).	
NEW SOUTH WALES, Land Legislation in 1861.	74
NICANDER'S continuation of Swedish population tables	115-16
OPIMUM TRADE, historical notice of	15-16
ORANGES, <i>trade in</i>	401
Enormous number imported (650 million, or 22 to each person)	401
Places whence exported, and comparative supplies	401
Mode of culture and expense of orange gardens, and annual produce of trees	401
Value of exports from St. Michael's	402
OXFORD, fever in, notice by Dr. Acland	89
PAUPERISM, see <i>Poor</i> .	
PERSIA. <i>Trade of</i> , 1860	400
Population and imports of Tabreez	400
British manufactures dyed and sold to Russia as Persian	400
Exports to Russia, revenue, taxes, &c.	400
PLAGUE, ravage of, in Sweden	136-7
POOR, relative pauperism of England, Scotland and Ireland, 1851-60 (see <i>Purdy</i>)	27
census of, 1851-60	28
comparison of wealth and pauperism in the three kingdoms	39

	PAGE
POOR, reason of the decline of Irish pauperism	29
<i>tables of number relieved, sums raised and expended for, &c.</i>	42-7
extent of pauperism in the distressed unions of Lancashire, 1861-2 (see <i>Purdy</i>)	377
POOR LAWS, objections to out-door relief, with illustrations of its deteriorating effects in the Highlands	{ 29-32, 40
POOR RATE expenditure in Lancashire, comparative in 1842-60	535
POPULATION TABLES, recommendation of, by Price and De Moivre	113
POPULATION, increase of	{ 278, 409 542
diminution in rate of increase of, in Western Europe, since 1845	492
of France, see <i>Census</i>	
of Sweden, <i>tables of</i>	138-67
of Sweden in 1757-75, thinness and dispersion of	111
lot of documents relative to, in possession of Sweden	120-2
of South Australia, see <i>Census</i> .	
PRICES of provisions, average of consols, wheat, meat, &c., 1861-2	{ 87, 278 408, 542
of food and clothing in Scotland, 1835-60	471-7
PRISON STATISTICS, resolution of Statistical Congress of 1860, on	182
— and discipline in Lower Bengal (see <i>Mouat</i>)	175
PRISONS, list of those in the lower provinces of Bengal	180
see <i>Dietaries</i> .	
PRISONS, INSPECTOR of, in Bengal, duties of	178
PRISONERS in Lower Bengal, sickness and mortality among	194-206
— cost of	211-14
— education of	215-17
PROSTITUTION in London, effect in checking illegitimacy	273
PURDY (Frederick). <i>The Relative Pauperism of England, Scotland, and Ireland, 1851 to 1860</i>	27
Diversities of relief in the three kingdoms	27
Definition of "pauper" and "poor person"	28
<i>Census of paupers, 1851-60</i>	28
— percentage of paupers in each kingdom	29
— reasons of the decline in Irish pauperism	29
— objections to out-door relief	29
— statement of the excessive out-door relief in the Highlands compared with Ireland, and its deteriorating effects in the former country	30-2
Pauper lunatics, percentage in each kingdom, and cause of its low ratio in Ireland	33
Poor rates levied in the United Kingdom, and sums voted by Parliament in aid	34
Relief to the poor, average charge per head on the population, and cost per pauper	35-6
— evil effects of out-door relief in depressing the wages of labour	36
— expenditure additional to poor relief: lunatics, vaccination, medical charities, offices, and salaries	37
— amount of law costs	38
Rate in the pound on real property	38
— comparison of wealth and pauperism in the three kingdoms	39
Excess of out-door relief in the Highlands and in Wales	40
Necessity of making the situation of the pauper less eligible than that of the lowest independent labourer	40-1
<i>Tables, number of paupers relieved and ratio to population</i>	42-3
— sums raised as poor rates, and votes by Parliament	44-5
— sums expended in relief, and total expended in public charity	46-7
— annual value of real property; medical charities expenditure in Ireland	48
— cost of public vaccination	49
PURDY (Frederick). <i>Extent of Pauperism in the Distressed Unions in Lancashire and other parts of the North of England, 1861-2</i>	377
Comparative pauperism of Oldham and Preston, &c.	377
Number of persons employed in, and dependant on, the cotton manufacture	378
Percentage monthly increase of pauperism in five most pauperised unions	379
Annual value of real property in Lancashire in 1843 and 1860 (increase 53 per cent.)	379-80
The Lancashire distress due to excessive over-production more than to the failure of the cotton supply, which has yielded large remunerative returns to the employers	380-1
<i>Table of number of persons in receipt of relief in the distressed unions, 1861-2</i>	382-3

	PAGE
PURDY (Frederick). <i>On the Earnings of Agricultural Labourers in Scotland and Ireland</i>	425
Excellence of Irish official statistics	426
Scotland, six classes of agricultural labourers	426
— the crofters and cottars, yield of the crofts	426
— excellent character and deportment of the peasantry	427-9
— modes of payment of farm servants, value of "benefit," &c.	427
— "hind" system, payment of shepherds in sheep, &c.	428-9
— rate of wages in 1860, allowances, &c., in groups of counties, and classes of labourers	429-33
— ditto for all Scotland	433-5
— demand and supply of agricultural labour, rate of wages inversely to proportion of adults engaged in agriculture	435-6
— rise in rate of wages from 1835 to 1860, and comparative rates in 1660, 1743-90, 1810, &c.	437-41
— cost of labourer's food, clothing, and rent	441-5
Ireland, three classes of agricultural labourers	445
— rate of wages in 1860, allowances, &c., in each province, acres under crops	446-50
— supply of labour, rise in wages	451-6
— evidence of scarcity of labour in some counties, and of employment in others	451-2
— comparison of wages in 1844 and 1860, showing increase	454
— instances of the assistance of his family to the labourer	455-6
— labourer's expenditure for food, clothing, and rent	456-64
— diet of unions in Ulster	457
— dietaries of five Irish counties	458
— average weekly cost of families 1s. 2d. each person	458
— Ulster dietaries much below other counties as to cost	459
— Parallel of food consumed by a family supported by work, and when in the workhouse	459
— advantage to the Irish labourer of the substitution of Indian meal for potatoes	460
— the Irish workhouse dietary more nutritious than the more expensive English dietary (explained)	460-1
— cost of clothing of agricultural labourers and their families	461-3
— rents of cottages 15s. to 80s.	464
— numbers and ratio of farms and mud cabins in each province of Ireland	464
Average rates of wages, rise in, and range of ditto, weekly cost of food, &c. in the three kingdoms	465
Table of weekly money wages, task-work payments, and harvest wages in Scotland, 1860	467-8
Ditto 1835-44 compared with 1860	469
Yearly wages and allowances to farm servants, 1835-43 and 1860	470-1
Table of cost of food, firing, clothing, and rent in Arbroath, 1812-33	471
Tables of shop prices of food in various parts of Scotland, 1835-60	472-4
— of shop prices of articles of clothing in counties of Scotland, 1860	475-7
— rentals in the Highlands and Islands	478
— population occupied in agriculture in Scotland in 1851	479
— of weekly money wages and task-work in each province and county of Ireland, 1860	480-2
— ditto average of agricultural labourers and artisans	483
— cost of diet and clothing in Galway and in unions	484-9
— yearly rents paid by Irish peasantry	490

RAILWAYS, prices and traffic :

Jan.-Dec., 1861	102	Jan.-June, 1862	422
Jan.-March, 1862	294	Jan.-Sept., 1862	557

RAILWAYS in India. *Report of Mr. Danvers on* 390

Expenditure, and number of miles open of each railway	390
Materials sent from England, losses of ships, insurance, &c.	391
Shareholders, expenditure, capital required, earnings, charges for conveying cotton, &c.	391-2

REGISTERS, superiority of Swedish to English modes of keeping 119

REGISTRATION of marriages, births, and deaths :

Quarter Oct.-Dec., 1861	84, 91	Quarter March-June, 1862	405, 411
„ Dec.-March, 1861-2	275, 282	„ June-Sept., 1862	539, 546
1855-62, rate per cent., &c.			{ 85, 276
RENTS of cottages in Ireland			{ 406, 540
do. in the Highlands			464, 490
			478

	PAGE
REVENUE, net produce of, applications, &c., in the year and quarters ending:	
Dec., 1858-61 100-1	June, 1859-62 420-1
March, 1859-62 292-3	Sept., 1859-62 555-6
SANCTUARY at Whitefriars, suppression of, in seventeenth century	501
SANITARY Measures, saving by, in the army, emigrant service, &c.	507-9
SARGANT (William Lucas). <i>Undiscriminating Income Tax reconsidered</i>	339
Report of Mr. Hubbard's Committee against alterations of the tax	339
The various conflicting opinions on the advantages or disadvantages of the tax	339-40
Necessity of appealing to first principles and illustration in a supposed colony such as "Salt Lake," showing the cost of governing to be the measure of taxation	340-1
The cost of government principle shown to override any claim as to age or tenure	342
Ditto as to capitalized value or savings	343
Ditto as to sacrifice, earned incomes, and small incomes.	344
Ditto as to graduation according to wealth	345
Distinction between current expenditure and permanent improvements	346
Application of the "Cost of Government" principle to the question of temporary earned or independent incomes	346-8
Difficulties in the application of ditto to our more complex condition	349-52
Adam Smith's dictum regarding our country as an estate, on which each proprietor contributes according to his revenue from it	349-51
Question of colonies paying for their own defence	350
Proportion of Government cost to individual taxation, and objections to graduations	351-2
Difference of taxation for permanent improvements and that for current expenditure	353
Age not entitled to consideration in taxation for current expenditure	354-5
The same with regard to other proposed immunities	355
Case of a physician and a landowner, showing the former to be entitled to no favour on account of the precariousness of his income.	356-7
Life tenancy, owing to the custom of primogeniture, or settlement, not entitled to reduction of rate	357
Reasons against lowering assessment of rent of land and clergymen's tithes	358
Unfair assessment of small house property and of mines	359
Exemption of premiums on life insurance	360
Indefensible permission of assessment on last year's profits when below the three years' average	360
Terminable annuities, a reduction only allowable on purchased ones	361
— injustice of the Government in charging the long annuities with income tax to the full	362
— cases of Lands improvement Company, and by Mr. Newmarch, showing its injustice and means of evasion	363-4
— objections to term, annuities, as subjects of transfer, from this unfairness	364
Life annuities, liable to the full tax as incomes for entire expenditure	365
Comparative case of twin daughters, one with annuity, and the other with a charge on real estate	365
Mr. Warburton's opinion of the necessity of a uniform rate from year to year not tangible	366-7
Objection to Dr. Farr's scheme of capitalization of values of annuities, consols, rents, &c., that the taxes on them require capitalizing as well	367-8
Objection to Mr. Mill's plan for non-taxation of savings, with illustrative case.	369
Difficulties in applying his principle to classes of persons	369
His presumption that professional exceed trade savings, and therefore that professions require greater deduction of tax on their incomes not borne out by evidence of the facts	369-70
The claims of professional men for reductions vested on the totally opposite principle of inability to save	370-1
Exemptions for savings would benefit only the rich	371
Our poor relief an example of mercy as well as justice in taxation, and necessity of mercy to our poorer middle classes by the reduction of the income tax on small incomes	371-2
Arguments for taxing the excess above 100% only; illustrations of its effects, and reasons why it should not be considered as entailing a principle of graduation	372-4
General summary of the arguments adduced	375-6
SCHOOLS, private, self-supporting, number, and modes of increasing them, &c.	60-2
Evening, beneficial effects on the retention of knowledge, of a more extended adoption of	65-6
SCIENTIFIC CONGRESS, see <i>Congress</i> .	

SCOTLAND, Illegitimacy in	256-62
see <i>Agricultural Labourers</i> .	
SHIPPING, foreign trade, United Kingdom :	
Jan.-Dec., 1858-61 98	418
Jan.-March, 1859-62 290	553
Jan.-June, 1859-62	
Jan.-Sept., 1859-62	
SILK, amount exported from China, 1844-60	{ 4-5 7-9
SILVER paid to China as balance of trade, absorbed by India	4
SINKING FUND, difficulties frustrating attempts at a continuous one	318-19
STATISTICAL INQUIRIES, prejudice against	111
STATISTICAL SOCIETY, anniversary meeting and report (twenty-eighth)	
1861-62	105
list of papers read	106
abstract of receipts and payments	110
proceedings, ordinary meetings, first to eighth, 1861-62	—
STATISTICS, excellence of Irish official	426
SUICIDES, increase of, in Sweden, five times since 1780	135
tables of, in Sweden	172
SUNDAY, Bianconi's illustration of the economic gain of keeping, for his horses	514
SWEDEN, vital statistics of, 1749-1855 (see <i>Hendriks</i>)	111
population in 1757-75, its thinness and dispersion	111
small number of town to country population in, (one-tenth)	128
density of population in, only one-eleventh that of England	128
tables of population, &c., of	138-67
SYKES (Colonel). <i>Notes on the Progress of the Trade of England with China, since 1833, and on its present Condition and Prospects</i>	3
increase of the trade since 1814, from three to seventeen millions	3
Silver paid to China as balance of trade absorbed by India	4
Explanation of the tables from reports in Chinese newspapers	4-6
Amounts of tea and silk exported, 1844-60	4-5
Argument from passage of exports through Taeping territories, against their supposed brigand character	5
Tables of export of tea and silk from Shanghai	7
— ditto from "treaty ports"	8
— export of tea and silk to Great Britain, United States, and France	9
— exports from England to China, 1833-60	10-12
— ditto English and foreign produce, 1856-60	13
— imports from China, 1856-60	14
Historical notice of the progress of the illicit opium trade	15-16
Protestant missionary labours in China	16-18
Particulars of Gutzlaff's "Christian Union"	17
Christian origin of the Taeping or "Great Peace" rebellion	18
Doubtful policy of our opposition to the Taipings	19
TAXES, proposed new, in French Budget for 1863	79
TEA, amount exported from China, 1844-60	{ 4-5 7-9
TELEGRAPH (ELECTRIC), progress and present prospects, 1850-61	82
— enumeration of foreign projected lines	82
— near approach to an entire circuit of the world, by	83
TITHE COMMISSION, commutation of tithes, &c.	304-5
TOTTIE (John William). <i>On the Inclosure Commission, its Powers, and the Principle on which they have been exercised</i>	297
Proceedings under the Acts for the inclosure, &c., of land, prior to the authorizing Act	297
Proceedings subsequent to ditto, appointment and duties of the valuer	298
Exchange of lands, powers of the Commissioners, &c.	300
Inclosure Acts, abstract of proceedings under, and dates of the Acts	301
Drainage. Public money : advances and mode of repayment	301-2
— Private money : applications and amount	303
Drainage and improvement of Lands Companies Acts	303
Tithe commission. Boundaries of parishes	304
Exchange of glebe lands, and commutation of tithes	304-5
Copyhold enfranchisement commission	305-6
— number and amounts of enfranchisements and commutations	307
Drainage of land, commissions of sewers, power to take land, &c.	307-8

	PAGE
TOTTIE (John William). <i>On the Inclosure Commission.—contd.</i>	
Elective drainage districts, requirements of the Inclosure Acts, &c.	309-10
The principle of centralization not in this instance an interference with local free action	310
Civil charges and repayments	311
Table of Inclosure Acts, and price of wheat, 1800-61	312
TRADE of the United Kingdom, exports and imports, 1859-62	{ 95, 286 415, 550
see <i>Exports, Imports.</i>	
of England with China, progress of (see <i>Sykes</i>)	3
of Persia, see <i>Persia.</i>	
TRAINING COLLEGES, expenses of, principally defrayed by Government.	68
VACCINATION, cost of public	49
in Sweden, decrease in deaths from small-pox, since, from 7·83 to 0·09 per cent.	135
VICTORIA, labour and wages in, in 1861	75
decreasing production of gold in, 1861	396
decrease in earnings of diggers, wages, &c., 1854-61	397
see <i>Gold.</i>	
VITAL STATISTICS of Sweden 1749-1855 (see <i>Hendriks</i>)	111
WAGES, rise in rate of, from 1835 to 1860, &c.	{ 437-41 454
average rates of, in the three kingdoms	465
tables of, in Ireland	480-3
in Victoria, 1861	75
ditto comparison of, with expenditure in 1854 and 1861, showing their reduction in the latter year to be much less than that of the price of food.	76
ditto fluctuations of, showing decline since 1854.	397
of AGRICULTURAL LABOURERS in Scotland and Ireland (see <i>Purdy</i>)	425
— hind system in Scotland	428-9
WAR, expense of, a moral check on the lust of conquest in nations	314-15
WARGENTIN'S memoir on Swedish censuses, &c., notice of	112-14
WEATHER, see <i>Meteorology.</i>	
WEIGHT of body, table of average	25
WILLS and administrations, calculations by the Registrar-General, for the year 1858, average amounts of property left, &c.	78



